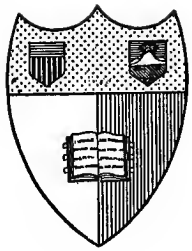


INTRODUCTION

TO THE

STUDY OF COMMERCE

BY

FREDERICK R. CLOW, PH.D.
TEACHER OF ECONOMICS AND HISTORY IN THE STATE NORMAL SCHOOL, OSHKOSH, WISCONSIN

WITH AN INTRODUCTION BY

F. W. TAUSSIG, PH.D., LL.B.
PROFESSOR OF POLITICAL ECONOMY IN HARVARD UNIVERSITY

SILVER, BURDETT AND COMPANY
NEW YORK BOSTON CHICAGO

TABLE OF CONTENTS

PAGE

INTRODUCTION vii

PREFACE xi

SUGGESTIONS TO TEACHERS xv

LIST OF BOOKS xxiii

CHAPTER I

THE ELEMENTS OF COMMERCE

§ 1. The Problem 1

§ 2. The Motive Power 3

§ 3. The Nature of Commerce 5

§ 4. The Merchant 9

§ 5. Division of Labor and Production on a Large Scale . 11

§ 6. The Rise of Commerce 14

§ 7. The Use of Money in Commerce 19

CHAPTER II

THE MATERIALS OF COMMERCE: MERCHANDISE.

§ 8. Classification 24

§ 9. The Foods 27

§ 10. The Textiles 30

§ 11. Minerals and Others 33

CHAPTER III

THE FOREIGN COMMERCE OF THE UNITED STATES

§ 12. Articles Imported 37

§ 13. The Tariff 44

§ 14. The Source of our Imports 46

§ 15. Articles Exported 51

§ 16. Destination of our Exports 57

§ 17. The Balance of Trade 62

CHAPTER IV

The Commerce of Other Countries

PAGE
§ 18. The United Kingdom 69
§ 19. Germany 77
§ 20. France 82
§ 21. Other Countries 87
§ 22. The Ocean Carrying Trade 89

CHAPTER V

The Domestic Commerce of the United States

§ 23. The People 94
§ 24. The Merchandise 96
§ 25. The Carrying Trade 98
§ 26. Commercial Centers 101
§ 27. The Volume of Domestic Commerce 103

CHAPTER VI

The Organization of Trade

§ 28. Classes of Merchants 106
§ 29. Associations of Merchants 111
§ 30. How Sales are Made 113

CHAPTER VII

Prices

§ 31. Market Price 117
§ 32. Profits 122
§ 33. The Trade in Securities 126
§ 34. Speculative Trade 133
§ 35. Commercial Crises 139

CHAPTER VIII

Payments

PAGE
§ 36. Banks 142
§ 37. The Use of Credit 145
§ 38. How Payments are Made 149
§ 39. Exchange 152

CHAPTER IX

How the Equilibrium is Maintained

§ 40. Prices and the Flow of Money 158
§ 41. Prices between Distant Countries 163
§ 42. The Equilibrium as Affected by Bounties and Tariffs . 166
§ 43. Sharing the Advantages of Trade 168

CHAPTER X

Practical Devices for Promoting or Regulating Commerce

§ 44. Introduction 175
§ 45. Security of Person and Property 177
§ 46. Informational 179
§ 47. Providing Facilities 181
§ 48. Bounties on Production or Exportation . . . 183
§ 49. Protective Duties 185

APPENDIX

I. The Cost of a Dinner 193
II. Foreign Consuls in the United States 194
III. The Study of Commerce in Schools 204
IV. Bond-value Tables 213

Index 221

INTRODUCTION

MR. CLOW'S book is significant of a large and beneficial change in the development of secondary education in the United States. The programme of the secondary schools is being steadily broadened and strengthened; and this not only by the better teaching of old subjects, but by the introduction of new. The modern languages, the natural sciences, political and social sciences, have been added, and as time has progressed, have been taught with greater detail and with better methods. Among the subjects recently added to the programmes in frequent use is economics, and Mr. Clow's book constitutes an addition to the tools available for the teacher in this branch of knowledge.

I have expressed myself elsewhere[1] as to expediency of the addition of economics to the curriculum of the high school. Properly taught, it can be brought within the compass of pupils of high school age; it can be made truly liberalizing and enlightening for them, and it can aid in making them better workers and better citizens. Probably those pupils who propose to go on from the secondary school to the college and university do better in postponing

[1] In a paper read before the Harvard Teachers' Association, and printed in the *Educational Review* for May, 1899.

the subject until they have reached these institutions; but for the great majority, whose education ends with the high school, there is here a profitable field. It is especially profitable in the commercial courses which are coming so much into vogue in our high schools, redeeming them from too exclusive an attention to the aridities of bookkeeping and commercial arithmetic and the mechanical arts of typewriting and shorthand.

But the usefulness of any new subject, and indeed its very availability, depend mainly on the mode in which the materials for teaching it are at hand. In all the subjects which are taught in the secondary schools — both those traditionally in their programmes and those added of late years — a constant process of experiment and change in the methods of instruction is going on, due to the awakening of new needs, the perception of old defects, and the better understanding of the principles that underlie the teaching art. Precisely what the outcome in the way of text-books and manuals will be in the several subjects, must depend largely on the experience of the class room. This will be more particularly the case in the subjects most recently added. Such experience has been indispensable in the natural sciences, and strikingly so in physics and chemistry, where the proper combination of text-book and laboratory practice has been slowly worked out, perhaps not yet with perfectly satisfactory results. The lessons of experience must be awaited at least as guardedly in a subject like economics, of comparatively recent introduction even in the colleges and

universities, and hardly subjected to any adequate trial in the secondary schools.

To the tools of the teacher in economics Mr. Clow now adds this book on Commerce. It must be tested, like every new tool, by actual use. That it has not been constructed without some careful experimenting is shown by what the author says of its trial in the school with which he is connected; and thus it rests already on a considerable experience. But it is also constructed on sound principles. Two fundamental principles of teaching — that the pupil shall first observe and understand the things with which he is brought in contact by familiar experience, and shall proceed thence to the study of things unfamiliar; and that he shall be trained to observe, to do, and to think for himself — these Mr. Clow has had steadily in mind. Hence his book is not so much a text-book as a manual of directions, an aid and a guide for teachers and pupils. As such it assumes that the instruction will be given by a capable teacher, well trained in this particular branch of knowledge; and it calls for careful watching and judicious guidance of pupils. Rightly used, it may be expected to prove stimulating and profitable.

F. W. TAUSSIG.

PREFACE

For several years the author of this book has spent much time and thought on the problem of making economics a more satisfactory school study. One of the conclusions to which he has been brought developed itself gradually from his observation and experience before it received any conscious attention. It is that the ten or fifteen weeks frequently allowed for economics should not be occupied with presenting a conspectus of economic theory; it is better to attempt less and do it better. During the past two years the author has been endeavoring to select phases of economics which have a unity and completeness when taken by themselves, which possess the highest educational value, and which can be presented successfully under the conditions that exist in secondary schools. One of these phases is trade or commerce, — the mechanism and process of exchange.

A school study with which this work is closely allied is commercial geography. It has long held a prominent place in European schools, and is just beginning to receive recognition in this country. We do not yet, however, have a text-book on the European model; this book comes the nearest to it, especially in Chapters II to V. In fact, this book could be used to supplement either economics or

industrial geography, or be made the basis for a combination of the two studies.

Chapters VII and VIII cover matter that is included in commercial arithmetic, with the difference that the point of view is economic rather than mathematical. The exercises are for illustration merely, and not for practice or drill. Hence at this point the two studies, commerce and commercial arithmetic, might be combined, or the one used to supplement the other.

The aim has been to produce a working manual for students whose grade of scholarship is that of the last year in a good secondary school or the first year thereafter, and who are soon to pass from school into practical life. But the governing purpose running through it all is not so much to prepare the student for practical business as to enable him to comprehend some of the principles which lie at the bottom of all business, to give him that larger intelligence by which he may see the social signification of any detail, as well as its relation to his own pocket. A working knowledge of any business can be learned best by the doing; the schools can give it only imperfectly. But the schools can and should give that broad understanding of industrial life which no amount of mere experience in business can ever give; which is the product of open-eyed observation, followed by critical analysis and close reasoning,— activities which actual business does not foster, but which find their natural home within academic walls. That youth enters upon his business career with the best knowledge who most profoundly comprehends

the world in which he is to employ his energies. This book is an attempt to illuminate that side of the world which will be most often turned to his gaze.

Some of the features of this work have been suggested by Mr. Herbert J. Davenport's "Elementary Economics" and by Mr. Henry W. Thurston's "Economics and Industrial History." Acknowledgments for personal assistance are due to numerous friends — teachers and business men. Mention should be made of Dr. G. O. Virtue, of the State Normal School at Winona, Minnesota; Professor William A. Scott, of the University of Wisconsin; and Professor F. W. Taussig, of Harvard University. Miss Josephine Henderson, teacher of rhetoric and composition in the State Normal School at Oshkosh, Wisconsin, rendered valuable aid in revising the proof sheets.

The author's classes, collectively and many of the members individually, have contributed more than it is possible to estimate; their patience and hearty coöperation in the constant experimenting were indispensable.

F. R. CLOW.

STATE NORMAL SCHOOL,
OSHKOSH, WISCONSIN,
March, 1901.

SUGGESTIONS TO TEACHERS

To use this book successfully a class must keep in close touch with actual business. The development of underlying principles is the first aim; but the student can grasp them clearly and realize their meaning only when he sees them arise necessarily and naturally out of the phenomena of business. He must draw freely on his experience, supplemented by that of the teacher and the other members of the class; he must observe the commercial operations going on about him; he must interview business men as much as his own time and their patience will permit; he must make some use of original materials, such as government documents, newspapers, market bulletins, and trade publications. By thus using commerce in the concrete to illustrate or prove the theory of commerce, a class will take keen interest in the work and realize benefits afforded by no other study.

The method is to tell the student nothing which he is able to find out for himself. Hence, the text is brief, treating usually of general principles; sometimes descriptive matter is given which the student could not readily find, and sometimes it is given as a sample or model of what his own work should produce. The numbered exercises at the beginning

of each section should be discussed when the section is assigned for study; they are intended to call up what the student already knows about the subject and give him a start in its study. It is expected, however, that a class will spend most of their time for study on the exercises at the end of each section. These exercises are arranged in the order of their worth. Those headed "For Discussion" are intended to be talked over in the class, to bring out certain principles; they are not always capable of precise answers. The "Required Work" consists of exercises that are strictly germane to the subject of the section and may be necessary to a proper understanding of it; the teacher, however, must use discretion about "requiring" all of the exercises, as some of them would take much time. The "Optional Work" includes less essential topics or those that few students would have the time or ability to study.

It is evident that work, such as is here described, cannot be dashed off in a hurry or crammed into a student. Its proper performance will require a large amount of time on the part of each student, on the part of the teacher for conferences, and on the part of the class and teacher together. There must be time to talk things out. With a well-informed and right-minded teacher, even an occasional desultory discussion may be highly profitable. Each of the forty-nine sections should occupy not less than one recitation, three-quarters of an hour in length; often two or more recitations could be occupied with great advantage. It is better to study part of the book

satisfactorily than get through it and feel that nothing worth while has been accomplished. If necessary to make omissions, the parts to be omitted should be determined with reference to the ability of the class. In general, the easier work is at the beginning and the more difficult near the close. If the class is composed of mature students, especially if they have studied economics, industrial history, or commercial geography, the first two chapters might be omitted. For young students the work might well terminate with Chapter VI. The remaining three chapters are necessarily abstract and more difficult.

It is needless to say that this plan requires a capable teacher. The book is merely a suggestive outline; not only must there be much organization of a class by the teacher, but the actual instruction must be drawn from the teacher rather than the book. The teacher must have first of all sympathy with the students and ability to keep a class in the right spirit. It is impossible to make rigid requirements, and much must be left to the inclination of the students. He must have familiarity with business and a thorough knowledge of economics; one who has not made this preparation could probably get it best in a short time by working on the exercises.

The author takes the liberty of making a few detailed suggestions, though realizing that no two teachers can do their best work in exactly the same way, and that a good teacher is largely independent of the text-book in any case. These suggestions are

drawn from actual experience. The proof sheets of the book have been used with a class; most of the matter was used in mimeographed form with three other classes; the leading features of the book itself and of the suggestions here given have been employed much longer and are the survivals of numberless experiments.

In planning the work the first thing is to see that the requisite books are on hand. The most essential are published by the United States government and can be had for the asking. A fair equipment of other books could be secured for fifteen dollars.

Work on individual topics by members of the class should be made prominent; more exercises have been given than it would be profitable for any one student to perform. In many places topics mentioned in the text have been numbered, to facilitate making assignments to individuals. Exhaustive work on one topic should be accepted in place of the usual superficial work on many topics. If the class is small, oral reports may be made on these topics during recitation.

There should be some written work. Essays or brief papers may be written on the individual topics. Short exercises prepared by the entire class may be brought to the recitation in writing, when no documents are required for their preparation or when the class is small so that all can get access to the documents. Exercises of a deductive nature may be written on blackboard or paper during the recitation.

CHAPTER I. — The purpose of the exercises in § 1 is to make sure that the students know commerce in the concrete, though there are many other devices which would answer as well; the students who know the least about commerce are likely to shrink from such work, but they are the ones who need it most. Section 3 is fundamentally important; the exercises should be thoroughly mastered. In presenting § 7 the teacher should have in mind the author's point of view as brought out in Chapter IX. The teacher who cannot do this should omit the section.

CHAPTER II should be taken up largely by individual topics; also by oral reports on each if time permits. Rocheleau is excellent for young students; also "The Growth of Industrial Art," compiled by Hon. Benjamin Butterworth and published by the government. A splendid opportunity is here afforded for training in research, also in the making of classifications and realizing their uses and abuses.

CHAPTER III. — It is first necessary to learn how to use the documents; then a little mathematical work before undertaking the construction of charts will be a saving of time. The distinction between raw products and manufactured goods, in §§ 12 and 15, must be somewhat arbitrary. The division made by the Bureau of Statistics is here followed in the main; the chief difference is in regarding articles like copper ingots and refined petroleum as raw rather than manufactured, because of the relatively small amount of labor that is spent upon the raw material after it is extracted from the earth. Section 17 is somewhat difficult, but it should be mas-

tered, especially if the class is to go through the book. This illustration may be helpful: draw on the blackboard two large circles of equal size; let one represent the New World and the other the Old World; suppose one were to export to the other but not import from it, and the other world import but not export. A series of excellent articles on the history of the foreign commerce of the United States has been appearing at intervals in the *Journal of Political Economy*, published by the University of Chicago; they began with December, 1897.

CHAPTER IV. — This is best studied by individual topics, the aim being to learn how to study the commerce of a foreign country. There are no detailed references to the Consular Reports, in order that the students may learn to find their way through these valuable documents independently; use the index volumes. Interview foreign consuls, if any are within reach; see list in Appendix.

CHAPTER V. — Here there may be more or less individual work. The exercises can be increased almost indefinitely; material exists in great profusion; a valuable monograph on the domestic commerce of the United States is in the Monthly Summary for March, 1901, issued by the Bureau of Statistics. For trade between the Atlantic and the Pacific ports of the United States see C. & N., 687–9. In connection with this the literature of the Panama and Nicaragua canals might be studied. Young students will find the newer school geographies helpful.

CHAPTER VI. — On this little can be found in

books; information must be gathered from trade publications or by interviews. Each student should select some line of trade for investigation. The following partial list may assist in making the assignments: iron and steel, machinery, stoves, hardware, lumber and building materials, furniture, wood for fuel, coal, petroleum, stone, paints and oils, crockery, clocks and watches, jewelry, music goods, stationery, books, cotton, wool, carpets, dry goods, tailor's supplies, clothing, millinery, notions, hides and leather, boots and shoes, grain, flour, hay, tobacco, liquors, meat, live stock, vegetables, fruit, dairy products, groceries, drugs.

CHAPTER VII covers a large subject that is difficult at the best. Diagrams for the graphic representation of demand and supply may be made in several forms, but the author has found the one given more useful than any other, especially for blackboard work. The usual plan is to put the supply curve with the demand curve at the right of the line OY; their intersection indicates where supply and demand are at equilibrium. Section 33 could be omitted without injury to the other work. The teacher might read Greene's "Corporation Finance," published by Putnam. The first line of exercise 7, when filled out, might read: —

100 bonds, par value of each . .	$100.	$10,000.

On § 35 the teacher might read Jones's "Economic Crises," published by Macmillan.

CHAPTER VIII. — A complex subject, best studied by interviewing bankers. In § 36 samples of checks

and drafts should be exhibited. If time permits, the teacher should develop a bank statement on the blackboard, beginning with the starting of a new bank (see Dunbar). In § 37, example 4 is difficult, but well repays study. Section 38 requires samples of commercial drafts and bills of exchange.

CHAPTER IX. — The central point in this chapter is now a subject of controversy among economists. It may be omitted if the teacher does not agree with it, or to avoid giving controverted matter to students. In that case Chapter X should probably be omitted also. Whatever qualifications may be made to the quantity theory of money, the author is confident that it is the necessary starting point to an understanding of the equilibrium of commerce, and that it is worth while, when an exhaustive study cannot be made, to get the bald theory, with no qualifications beyond a mere caution. The qualifications will soon be learned in practical business, but the central principle of equilibrium never. The essence of the entire chapter is found in exercise 2 of § 40.

CHAPTER X.—Here it is more important that the student get the points of view of all parties, and hold himself in a judicial attitude, than that he arrive at definite conclusions. Use may be made of interviewing, collecting opinions from printed matter of all kinds, writing essays, and debates. The topics that do not appear to be open to discussion should be considered for the light they throw on the controverted topics.

LIST OF BOOKS

No attempt is made to give a complete list of books on commerce, as some of the books whose presence in the school library is assumed have excellent bibliographies. The following are the works that would be most useful. The letters in parentheses are the abbreviations by which some of them are cited.

GOVERNMENT PUBLICATIONS

UNITED STATES GOVERNMENT. All documents are furnished gratis on application to the proper department or to a member of Congress.

Department of State: Consular Reports, published bi-monthly. Special Consular Reports, especially Vol. XVI. on tariffs of foreign countries. Commercial Relations of the United States, published annually in two volumes. Treaties and Conventions of the United States; contains the full text of all treaties.

Bureau of Statistics, Treasury Department: The Statistical Abstract (S. A.) of the United States, published annually. Copies of recent tariff acts. Commerce and Navigation of the United States (C. & N.), published annually. Monthly Summary of Finance and Commerce. Numerous other reports on the commerce of the United States and other countries. The Statistical Abstract and the Commerce and Navigation Reports are indispensable for the proper use of this text-book.

Commissioner of Navigation, Treasury Department: Annual Reports for 1899 and other years. Give full information on subsidies to shipping.

Census Bureau, Interior Department: Abstract of the Eleventh Census. This is very valuable. The quarto volumes on manufactures and transportation are of some use.

British Government. All published by Eyre and Spottiswoode, London.

Statistical Abstract of the United Kingdom, published annually. 1*s.* 1*d.*

There are three other annual publications on commerce, but they are large volumes costing several dollars each, — one on the United Kingdom, one on the British colonies, and one on foreign countries.

Consular Reports. For a small price pages can be had from these, treating of any country.

STANDARD WORKS

Adam Smith: Wealth of Nations. Ashley's Edition (A. S.). Macmillan.

Bastable: The Commerce of Nations. Methuen & Co., London. The best book on tariffs from a non-partisan standpoint.

Chisholm: Handbook of Commercial Geography. Longmans. The most desirable reference book for the study of products and countries.

Dunbar: History and Theory of Banking. Putnam.

Ely: Several books. All published by T. Y. Crowell & Co., except the one on monopolies, which is published by The Macmillan Company.

Gibbins: History of Commerce in Europe. Macmillan.

Hadley: Economics (H.). Putnam.

Lalor: Cyclopedia of Political Science, Political Economy, and United States History, 3 vols. Rand, McNally & Co. Still valuable, though somewhat out of date.

Larned: History for Ready Reference, 5 vols. The Appendix has a good article on the history of commerce.

Laughlin's Abridgment of Mill (L. M.). Appleton.

Marshall: Economics of Industry. Macmillan.

Mill, H. R.: The International Geography (I. G.). Appleton. Valuable for reference.

Mill, J. S.: Principles of Political Economy (M.), 2 vols. Macmillan.

Nicholson: Principles of Political Economy (Nich.), 2 vols. Macmillan.

Taussig: Tariff History of the United States. Putnam. Covers the period from 1789 to 1897.

Yeats: Recent and Existing Commerce, History of Commerce, and several other books. Geo. Philip & Son, London.

TEXT-BOOKS

Bullock: Introduction to the Study of Economics (B.), New Edition. Silver, Burdett & Company. The bibliographies give an excellent guide to the literature on all economic questions.

Brown: Manual of Commerce. C. A. Nichols & Co., Springfield, Mass. Published in 1871.

Chisholm: Smaller Commercial Geography. An abridgment of the handbook mentioned above. References to the smaller are enclosed in parentheses.

Davenport: Elementary Economics. Macmillan. Offers excellent plans for the discussion of economic principles.

Eaton: How to do Business. Zeigler & Co., Philadelphia. Very desirable for its account of actual commercial practice. Contains fac-similes of business documents.

Ely: Outlines of Economics (E.). Flood and Vincent.

Gonner: Commercial Geography. Macmillan. An excellent little book for a supplementary text.

Laughlin: Elements of Political Economy (L.). Harper.

Rocheleau, W. F.: Great American Industries. 3 vols. I. Minerals. II. Products of the Soil. III. Manufactures. A. Flanagan, Chicago. Treats the history and processes of the industries in a way suitable for young students. Illustrated.

Thurston: Economics and Industrial History (T.). Scott, Foresman & Co. Useful for its method, its bibliographies, and its descriptive matter.

Walker: Political Economy. Briefer Course (W.). Holt & Co.

MISCELLANEOUS MATTER

The Commercial Year Book, published annually. New York. $1.

The Statesman's Year Book, published annually. Macmillan. $3. This volume and the preceding give figures for the commerce of all the countries in the world. One of these volumes is essential.

Rollins: Bond Values. Montgomery Rollins & Co., Boston. Tables up to fifty years.

Bradstreet's, a weekly journal of trade. New York. $5 per year. Bradstreet's reference books may be found at any large bank or wholesale house.

William B. Dana Co.: The Commercial and Financial Chronicle, published weekly, with monthly, quarterly, and semi-annual supplements. New York. $10 per year. This is the standard publication on bonds and stocks.

The metropolitan newspapers give in their financial columns and market reports the necessary information about current trade. The above named are desirable chiefly that students may know of their existence and nature. There are also daily papers, such as the New York Commercial, which treat of business affairs exclusively.

Trade publications: Every important line of trade has one or more weekly or monthly periodicals devoted exclusively to it. These may usually be found in the possession of retail dealers.

The literary magazines should be used freely with the aid of Poole's Index.

The quarterly and bi-monthly magazines on economics and kindred subjects issued by the universities, when they are at hand, should be searched by the more able of the students. The same is true of the standard publications on geography.

The Philadelphia Commercial Museum issues numerous pamphlets relating to the commerce of foreign countries.

INTRODUCTION TO THE STUDY OF COMMERCE

CHAPTER I.

THE ELEMENTS OF COMMERCE

§ 1. The Problem

LET us step into a grocery store and take a rapid mental inventory of the contents. There is tea from China, coffee from Java or Brazil, and cocoa from Guiana brought to us by way of Holland. There is sugar from the Philippine Islands and Cuba. We see codfish from the New England coast, salmon from the Columbia River, oysters from Chesapeake Bay, and sardines from France. Florida furnished the oranges, California the grapes, Jamaica the bananas, Michigan the apples, Asia Minor the dates and figs. The flour came from Minneapolis, and was ground from wheat that grew in North Dakota; the kerosene was refined at Cleveland from petroleum that was pumped from a well in Pennsylvania; this tobacco was grown in Kentucky, but manufactured in Cincinnati. We find butter from Illinois, cheese from Switzerland, eggs from twenty miles out in the country, potatoes from forty miles out, and vegetables raised in gardens in the outskirts of the city.

The inventory is only begun, but it already contains articles from a wide variety of places far and near.

Let us step into a large square building in Chicago, occupying a quarter of a block. There are shipping clerks and bill clerks and bookkeepers of various sorts. There are cashiers and stenographers. There is a traveling salesman receiving his instructions as he is about to start on a journey of six weeks. The mail brings orders from a score of these traveling salesmen who are now on the road. A member of the firm is giving an order to the representative of a shoe manufacturing company in Massachusetts for one thousand dollars' worth of their goods. On the floors above, boxes are being packed with boots and shoes, addressed, and sent down the elevator, from which they go into huge drays that cart them away to the railroad depots. Every day boxes are thus sent to every state in the Union west of Chicago and to many of those east and south.

The problem before us is to explain this ceaseless handling of goods. What are the motives that keep men at it? What are the factors that determine which way goods shall be carried and what quantities shall be carried to a given place? What is the organization by which this gigantic business is carried on? What shares do the various countries of the world have in it?

The astronomer has studied the moon and the planets until he knows the reason for their every motion, and can tell where they will be at an instant years ahead. We are now to attempt a somewhat similar study of the movement of goods and men in

the world of commerce, though the uncertainty in the conduct of human beings renders similar accuracy impossible.

Optional Work

1. Take a walk on a business street. Make a list of twenty kinds of goods that you see carried by. Indicate after each item (1) the place where the goods were probably produced, (2) the place from which they are now being taken, and (3) the place to which they are being taken.

2. Treat in the same way the goods you can see at a wharf. At a railway station.

3. Visit a store or some other mercantile establishment. Learn the number of purchases and sales in one day. Classify them roughly with regard to (1) kind of goods, (2) the places where they were produced or from which they were obtained by the dealer, and (3) the persons to whom they were sold.

4. Make a list of the kinds of work required in some retail or wholesale store.

5. Read "The Cost of a Dinner" in the Appendix.

§ 2. The Motive Power

1. You see some laborers toiling in a ditch under the hot sun. What motive impels them to this sustained but disagreeable exertion? What is the motive of the bookkeeper poring over columns of figures all day? Of the manager sitting in the stuffy office when it would be much more agreeable to be driving in the park?

2. Contrast the exertions of these people with those of the boys who play ball on the school ground. With those of the mother who watches over her sick child.

All human activity is to satisfy some want. It may be to get possession of some external object,

or it may be that the satisfaction arises from the activity itself; it may be that the only satisfaction derived is to escape from pain or to see others escape from it. The student should acquire the habit of thinking of these human wants as falling into two great classes; those which money can satisfy, and those which it cannot. Money can give us food, books, houses, and toys; it will bring us the services of barbers, coachmen, singers, cooks, etc. These and others like them may be called money wants. Wants of the other class — health, character, true friends, appreciation of music, a bicycle ride — cannot be satisfied with any amount of money. Money may procure some of the aids for obtaining these things, such as a bicycle, a piano, or treatment by a physician; but the real thing desired cannot be bought. To state the same thing differently: Wants of the first class may grow out of those of the second. The manager working in the office may desire a fine house — a want of the first class; but the reason for wanting the fine house may be to gain a prominent social position — a want of the second class. Yet, notwithstanding the close connection between these two classes of wants, it is still possible to separate them very distinctly in our thinking.

Wants of the first class — for things which can be obtained merely by the expenditure of money — are the driving force of the business world. To satisfy these the street laborer, the bookkeeper, the manager, all alike go to their daily tasks year in and year out through a large part of their lives.

These things which money will buy are usually

called *wealth;* sometimes, however, the terms *goods*, *commodities*, *products*, and *services*, are used, though with slightly different meanings. The activity of man to acquire wealth is called *labor;* and the process of bringing wealth into existence, especially if it be material wealth, is called *production.*

Questions for Discussion

3. Are our money wants ever satisfied? Do you know of any one who has all the money he wants or all he wants of the things that money will buy?

4. Is there danger that improvements in the production of wealth may some time result in the production of more than is wanted?

5. May labor-saving inventions make the satisfaction of our money wants so easy that there will not be work enough to employ all?

Required Work

6. Write a list of twenty wants that can be satisfied merely by the expenditure of money.

7. Write a list of twenty wants that cannot be thus satisfied. Mark with the dollar sign ($) those for which some wealth is necessary, with a cross (×) those for which it is helpful, with a circle (°) those for which it is superfluous.

§ 3. The Nature of Commerce

1. Define *barter, buy, sell, trade, commerce.*

2. Distinguish two meanings of the word *trade.*

3. In a trade is the loss of one party equal to the gain of the other?

John and Albert trade jack-knives. Consider why this trade was made. John may be a carpenter,

and Albert an office clerk. John has a little penknife, Albert has a large knife with numerous strong blades. The probability is that John would have more use for Albert's large knife than for his own penknife, while Albert would doubtless find the large knife a burden, but the penknife very useful. If they trade even, each has secured something of more use to him than what he parted with; each has made a gain, and the world is better off by the amount of their united gains.

Brown is a gardener and Jones is a tailor. Brown has all the appliances for raising vegetables, and has spent years in acquiring a knowledge of the business. Similarly, Jones has the equipment and the skill needed for making a suit of clothes. Brown supplies Jones's family with vegetables during a month, and receives in exchange a coat made by Jones. To see that this trade might be highly advantageous to both, one need only think of the difficulties Brown would encounter in making a coat for himself, and of the difficulties Jones would encounter in trying to raise his own vegetables.

These simple illustrations exhibit the nature of all commerce. It is essentially the process of transferring goods from persons or places where they have a comparatively small usefulness or value, to persons or places where they will have greater usefulness or value. Or, if we look at a given group of persons, farmers, for example, it is the process by which they exchange their products of which they could make little use, for other goods, such as sugar, which they need very much but could raise for themselves only

with extreme difficulty, or not at all. It is the process by which the world's goods get into the hands of the people who have the most use for them.

The words, *people who have the most use*, in the preceding paragraph, mean people who are ready to offer the most in money or goods or work, or something that is worth money. Mental desire or physical need is ordinarily measured in the business world only in terms of money. A hungry beggar may look through a restaurant window at the well-spread dinner table; but if he has no money to give for it, or anything that is worth money, it has no value or use to him in the commercial sense. Commerce is exchange, like the knife trade, and only those can take part in it who have something to offer, and something that is worth money. With this qualification, commerce is the process by which persons are enabled to dispose of such goods as they want the least, or can get with the least labor, in exchange for other goods which they want the most and could not easily produce for themselves.

One other thought is here suggested which should be borne in mind as this study proceeds. As commerce is exchange, and considers people only in proportion to what they have to offer in money value, it leaves out of consideration altogether the moral and sympathetic side of human nature; the fact that

"A man's a man for a' that,"

does not exist in the commercial world. I owe my grocer, as a grocer, merely the amount of his bill for the month. There commerce ends, but not my rela-

tions with him. He is a man, a neighbor, and a fellow-citizen, and in these capacities much is due him. But in the study of commerce these relations will be regarded only when they have a commercial bearing — when they produce results that can be measured in money. It should never be forgotten, however, that the commercial relation, the "cash nexus," as Carlyle called it, is not the only one that exists.

Required Work

4. If the usefulness of the large knife to Albert and John, as measured by each in money, is respectively ten cents and seventy-five cents, while the usefulness of the penknife is ninety cents and twenty cents, the situation might be represented thus: —

	Large knife	Penknife.
Usefulness to Albert	10 cents	90 cents
Usefulness to John	75 cents	20 cents

How much is the large knife increased in usefulness by the trade? The penknife? What is the sum of the two gains? How much is Albert's gain? John's gain?

5. Compute the gains for Brown and Jones in the same manner, making hours of work the measure of value, thus: —

	Coat	Vegetables
Hours required for Brown to produce	?	?
Hours required for Jones to produce	?	?

Optional Work

6. Make original illustrations like each of the above.

§ 4. The Merchant

1. Do people who merely handle goods or buy and sell them, without in any way changing their character, add to the wealth of the world?

2. If a second-hand dealer had bought the knives of Albert and John for twenty-five cents each, and then sold the penknife to Albert for sixty cents and the large knife to John for fifty cents, what would have been the gain to each of the three persons? Did the dealer help to create the gain which he secured, or did he merely get it from the others? Would all this gain have gone to Albert and John if there had been no dealer?

3. If Albert did not want any knife, but wanted a pair of pocket scissors, and a third man, Thomas, had such a pair of scissors which he was willing to exchange for a penknife, how could trades be made that would satisfy all three?

4. Could a fourth party be introduced and the trades worked out in the same way? Might the number be increased to a dozen? A hundred? A thousand?

5. What is the probability that the Alberts and Johns and Thomases will always find one another when they want to trade?

There are Johns, Alberts, and Thomases all about us. Everybody, to some extent, has things which he does not wish to keep, and wants things that he does not have. If they could all be brought together in the right combinations so that all the desirable trades could be made, the world's wealth would be increased many-fold. But as they cannot thus be brought together, it is the business of the merchant class to assist in bringing about the trades. In the fourth example given above the easiest way

to satisfy all would be to have Albert, John, Thomas, and the other man all go to a dealer and sell him the things they do not want, and then all go to him again and buy the things they do want. In a rural village the business is actually done this way.

But if Albert lives on one side of the world and John on the other, one dealer cannot do business with both. A long line of dealers is needed to pass the goods between the Alberts in Wisconsin and the Johns in China. In Wisconsin there are dealers who buy goods of Albert or sell goods to him; in China there are dealers who likewise do business with John. The dealers who sell to the consumers — to those who are to use the goods — are the retailers. Those who buy only for the purpose of passing the goods on to other dealers are the middlemen. There are many varieties of middlemen, — jobbers, brokers, wholesalers, commission merchants, and so on, about whom we shall learn later.

But merchants, the class who have the management of commerce, do not by any means manage all of it. When the farmer sells his wheat or corn or hay or cotton, he helps to carry on commerce, whether the other half of the transaction is done by a merchant or not. Then, too, every one who buys goods for his own use helps to carry on commerce whether he buys of a merchant or not. When a farmer trades a load of hay to a neighbor for ten bushels of seed wheat, there is commerce, though no merchant intervenes. However, it is the commerce managed by merchants that will chiefly engage our attention.

For Discussion

6. Is the bookkeeper in a dry-goods store a producer of wealth? Give reasons.

Required Work

7. What is the derivation of the word *merchant?* Account for the derivation and show its connection with the word *commerce.*

8. Define *wholesale, retail, jobber, broker,* and *commission merchant.*

Optional Work

9. Trace the course of some common article of trade from the producer to the consumer. If possible, get an example which actually occurred.

§ 5. Division of Labor and Production on a Large Scale

1. In Oshkosh there is a factory that makes fifteen hundred doors a day. Could this factory be carried on if there were no railroads or steamboats? Why?

In § 3, it was noted that commerce is the means by which people exchange things for which they have little use for others which they need much more. When the possibility of this exchange exists, people will produce things of no use to themselves, merely to exchange them for other things that will supply their wants. In this way the work of the world becomes divided among the people; each produces some one or few things which other people want, and in turn the thousand and one things that he wants are furnished by the labor and foresight of others.

Division of labor carries with it some great ad-

vantages. Their full discussion does not belong to this subject, but a few of them may be noted. (1) When a man does one kind of work all the time, he becomes more skillful. He may even be selected for this work in the first place because of special aptitude for it. In this way many are able to do very valuable work in certain lines when they would be useless for almost everything else. (2) The worker does not lose time in changing from one kind of work to another, getting the tools or machinery ready for it, etc. (3) When one man does many kinds of work, he cannot afford the best machinery for each, and the machines and tools he does have are nearly all idle, as he can use only one at a time.

Extreme division of labor is usually accompanied by production on a large scale. If one man is to give all his time to painting addresses on shipping-boxes, the goods must be produced in sufficient quantity in one place to fill as many boxes as he can address. One man and a machine may make only the front legs of a chair, and can turn out many thousand a day; to secure the greatest economy, enough chairs should be made in the factory to keep this machine going all the time.

Production on a large scale is possible only when there are good transportation facilities. The large sash and door factories of Oshkosh could not exist if they could not send their products thousands of miles away on railroads and steamboats. Then if the workers in these factories spend all their time in making sashes, doors, and blinds for three millions

of people, their food, shoes, clothing, fuel, and so on must be made for them by others, and brought to them from great distances. On the other hand, good transportation facilities would not exist if there were not an extensive commerce to utilize them; the greater the commerce, the better the transportation can be made.

It is thus seen that extensive commerce, division of labor, production on a large scale, and elaborate means of transportation are inseparably connected with each other.

Required Work

2. How many doors are there in your house? How many people live in it? If the average door lasts forty years, how many people housed as you are could the Oshkosh factory, mentioned in exercise 1, keep supplied with doors? If the other factories in Wisconsin, Michigan, and Minnesota increase this product twenty-fold, what portions of the United States could they supply? (See S. A., 3, for population by states.)

3. Read at least one of the following references: B., 143–53; W., 43–6; E., 111–16; Mar., 168–95; A. S., 5–15; N., 98–102; M. I., 156–9, 164–204; L. M., 100–11; L., 48–52; Nich. I, 104–37.

Optional Work

4. Learn from some manufacturer the amount of product his factory turns out. Estimate, as in exercise 2, the number of people it would supply, and the distance the goods would have to be sent to find a market.

For Discussion

5. Does division of labor bring any disadvantages to the workers? Are there disadvantages of any kind in production on a large scale?

§ 6. The Rise of Commerce

1. Name some articles which were formerly made at home for your own use, but which are now bought ready-made.

2. Name some articles which were recently made to order or near where they were used, but are now made at a distance and bought of merchants ready-made.

3. How have these changes affected the amount of commerce carried on?

Commerce has not always played so prominent a part in the business of the world. In primitive society everywhere each family makes nearly all of the things it uses. There is, therefore, little commerce. A few half-civilized peoples, like the Esquimaux, are in that condition to-day; many others have only partly emerged from this condition, such as the people of India and of a large part of Russia. The peasants or small farmers of Continental Europe are to a considerable extent independent of commerce. In the United States that condition exists to the greatest extent in the mountain regions of the South.

This system of independent family industry, with no commerce to speak of, was all but universal the world over a thousand years ago. In Teutonic Europe commercial life first became prominent during the Crusades, and has gradually increased since then. A brief review of this growth will now be of interest. England is the country in which it can be traced the most clearly.

The family system continued in England up to about the year 1200. Each family cultivated a few

acres of land. On this they raised the wheat or rye to make their own bread, and the animals to furnish their own meat and clothing. The women of the home spun the wool sheared from their own sheep. The weaving of the thread into cloth was often the work of the men, but it also was done in the home, and only for the use of members of the family. The garments, the shoes, the furniture, the utensils of the house and the farm, were all home-made.

Certain kinds of work, however, which required either special skill or a valuable outfit, gradually became separate trades. Each neighborhood came to have its miller, who ground the wheat for all and retained a share of the flour to pay him for his work and the use of his machinery. The making and sharpening of plowshares and other work in iron became the trade of the blacksmith. Then the baker, the carpenter, the cabinet-maker, and the wheelwright or wagon-maker appeared. The trade between these classes of people was confined entirely to the neighbors living in the same village or town.

Commerce with the outside world grew also, but was much smaller in volume. It was carried on chiefly by means of fairs. A fair was a gathering held at a stated time — annually, quarterly, or monthly, as the case might be — to which people came from considerable distances for purposes of trade. Here the first merchants appeared — persons who went from one fair to another and did nothing but buy and sell. The mass of the people resorted to the fair to exchange a few of their products for such necessaries as salt and iron, or such luxuries as

spices and finely woven cloths. A fair was always held in an open field, the people living in tents, booths, or the open air during their short stay. But sometimes a fair would develop into a market which was a kind of continuous fair. Then permanent buildings would be erected, and a city would be likely to grow up in the vicinity in the course of time.

There had been from very early times some commerce to supply luxuries for great nobles and princes. Spices, silks and other fine fabrics, jewelry, precious stones, and armor were the chief articles of this trade. To this the business of the fairs and markets was now added, and the class of merchants increased in numbers and wealth. At first they were mere traveling dealers, often carrying their wares on their backs like the peddlers who are now occasionally seen among us; next there were merchants who carried their goods in considerable quantities by water; finally, there were merchants who kept permanent places of business in the cities.

But it still remained true that the individual family was largely independent of commerce. Most of the trade that did exist was between neighbors in the same village. The great necessaries of life, such as flour, meat, clothing, foot-wear, building materials, fuel, furniture, and the simpler utensils, were either used by the ones who made them, in which case there was no commerce at all, or were carried only a few miles from the place where they were produced, in which case they were probably made to order and reached the consumer without the intervention of a merchant.

The growth of commerce, in amount and complexity, and in the extent to which it was carried on by a special merchant class, was steady but very slow up to about a hundred years ago. Since then the growth has been very rapid. The easiest way to trace it is through the great mechanical inventions. The steam engine, invented in 1862, is the greatest of them, and the one on which the importance of all the others depends. Three distinct steps or phases in the growth may be noted: (1) About the same time as the invention of the steam engine, several machines were invented for spinning and weaving. The use of water power or steam to drive them made it necessary that the manufacture of cloth should be concentrated into factories; this was the beginning of our modern factory system. (2) In the early and middle part of the nineteenth century came the use of steam for transportation on land and water, making it possible to carry the factory-made goods long distances and bring back other goods in return for them. It would pay to carry even to a great distance cheap and bulky articles like fuel and building materials. (3) The middle and latter part of the nineteenth century saw the introduction of cheap mail service, in connection with transportation by steam, and the invention of the telegraph and the telephone. These have made long-distance communication easy, greatly facilitating production on a large scale and its attendant commerce.

To-day the condition in England, the United States, and about half of Continental Europe is the reverse of what it was a hundred years ago. Division

of labor is extreme; each worker usually confines himself to one kind of work; the great necessaries of life as well as the luxuries are secured by exchange, partly with neighbors, but more with distant communities through the medium of various kinds of middlemen. This great change is called the Industrial Revolution. It has more profoundly affected the conditions of human existence than anything else that ever happened since man trod the earth.

Required Work

4. Make a list of ten articles that are prepared for use in your home and not bought ready-made.

5. Make a list of ten articles that you buy that are made to order, or are made near your home by people whom you know.

6. Read one of these references: T., 57–9, 94–8, 123–5, 138–53, 159–60; the whole of Part II. might be read with profit. Mar., 18–19; E., 26–28, 55; B., 53–69, 157–60; Toynbee, "Industrial Revolution," 51–5, 71, 90–3, 181–4, 189–94, 199; Walpole, "History of England," I, 49–66; Coman and Kendall, "History of England," Ch. XV.

Optional Work

7. Write a history of the extension and distribution of railway mileage in the United States. S. A., 348–56.

8. Give an account of one of the great inventions. Use the encyclopædias, biographies, and other available works. The following partial list of inventors and inventions is given to select from: (1) Watt, the steam-engine; (2) Hargreaves, the spinning-jenny; (3) Arkwright, various improvements in spinning; (4) Crompton, the mule; (5) Cartwright, the power-loom; (6) Whitney, the cotton-gin; (7) Stephenson, the locomotive; (8) Fulton, the steamboat; (9) Morse, the telegraph; (10) Bell, the telephone.

9. Learn from some elderly person the conditions of life in the first half of the nineteenth century.

10. Construct a model of an old-fashioned hand-loom.

11. Get an old spinning-wheel to exhibit to the class. If possible, do some actual spinning with it.

12. Give an account, based on observation or experience, of a modern factory.

§ 7. The Use of Money in Commerce

1. Plan how the trades indicated in exercise 3, § 4, could be made without the use of money.

2. If a tailor wished to exchange a coat for a dozen articles which together would equal the coat in value, how could the exchanges be effected without the use of money?

3. A gardener brings some vegetables to a grocery store and exchanges them for groceries. No money passes between the gardener and the grocer. Do they therefore make no use of money?

So far in our study of commerce little has been said of money. It has always been assumed that goods are exchanged for goods. But the questions above show that complex commerce would be impossible without money. The neighborhood trade of the mediæval village could be carried on with little handling of money. Even kings and nobles did much of their business by barter. It was in the fairs and the markets that money, like commerce itself, first came to play a prominent part.

In exercise 3, above, the grocer and the gardener do not handle money, but they *talk* money; it serves as a measure of value for the goods that are traded. Instead of comparing vegetables with groceries to

see how many of one shall be given for a certain quantity of the other, they compare each with money, and then exchange equivalent money values of each. There is a good mathematical illustration of this process. If we wish to add $\frac{1}{3}$ and $\frac{1}{4}$, or subtract them to see which is the greater and how much, we first reduce them to twelfths — a common denominator; then comparison, addition, and subtraction are very easy. Similarly, the values of vegetables and groceries can best be compared by reducing them to a common denominator, — money, and expressing their values in dollars and cents.

If the gardener sells his vegetables to one dealer, and buys his groceries of another, it is almost necessary that money in material form be handled. Money used in that way is said to be a medium of exchange; the vegetables are converted into money, and the money into groceries, money being the *medium*, the *means*, the *middle* of the two transactions.

Relative prices, *i.e.* the price of one commodity as compared with that of another, of course indicate the relative values of goods. But all prices, or the general level of prices for all goods, depend on the value of the money itself. If the money is very valuable, prices will be low; if the money has but little value, it will take a lot of it to buy anything, and prices will be high. Now the value of money, like that of everything else, varies inversely as its quantity. Some qualifications should be made to this rule, but their study cannot be undertaken here; as a general principle it is always true, though other

things sometimes obscure its working. So if the amount of money increases, its value may be expected to decrease and prices to rise; if the amount of money decreases, its value may be expected to increase and prices to fall. This principle must be clearly grasped, as other questions of importance depend upon it, especially those to be considered in Chapter IX.

Another important principle is that if every one sells as much as he buys and buys as much as he sells, he must receive money before he can pay it out, and in the end he pays out all the money he receives. Rights to property or money are here counted the same as property itself; lending money is buying a note or mortgage or bond, depositing money in a bank is buying a right to draw money, paying for work done is buying labor, and working for wages is selling labor. This principle has a few exceptions. If you lose some money, you cannot then spend as much money as you received or buy as much as you sold. On the other hand, if you find some money or dig some gold out of the ground and get it coined, you can then buy more goods or labor or rights than you have sold. But these exceptions are slight; it remains generally true that every one's selling equals his buying, for the simple reason that what he sells is the real means of paying for what he buys.

This latter principle holds true equally of nations and communities. A nation's selling, *i.e.* its exports, equals its buying, *i.e.* its imports. The goods a city brings in must be paid for by an equal quantity

of goods sent out. The imports and exports of a community may not equal each other in any one year, any more than the money a man pays out on a given day equals what he receives; but in the end they must be approximately the same. The precise reasons for this will be treated fully later on.

The thought contained in this section may be understood better if money is compared with some other token of value. Milk tickets are a good example. A dealer sells five hundred quarts of milk a day; but instead of selling the milk for money, he sells tickets and then receives the tickets in exchange for milk. What he receives for the tickets pays for the milk in the long run, though it might not do so on any given day. Then the number of the tickets and their value vary in inverse ratio to each other. By using pint tickets instead of quart tickets, twice as many could be kept in use; by making the tickets twice as large, twice as much pasteboard could be utilized; but in either case no more milk would be sold, and the amount of milk that each square inch of paper or pasteboard would buy would be reduced by one-half. Similarly, the function of money in commerce is that of a counter or ticket to facilitate the transfer of goods.

For Discussion

4. If the amount of gold in the world should be doubled by the product from South Africa and Alaska, what difference would it make in the usefulness of gold as a medium of exchange?

5. How would this change affect gold as a measure of value? How would long-time contracts be affected?

6. When we say that a man has "lots of money," or that he is "making money," or that he has "lost money," is the statement literally true? What do we mean?

Required Work

7. Read one of these references: B., 218–42; W., 97–111; E., 141–51; L., 67–82; N., 317–25, 346; H., 180–91; L. M., II., 17–24; A. S., 24–8; Nich., II, 88–124; White, "Money and Banking," 3–43.

CHAPTER II.

THE MATERIALS OF COMMERCE: MERCHANDISE

§ 8. Classification

1. Does the word *merchandise* include all of the things that are bought and sold? Would any other word serve better?

2. Suggest how the merchants in your city might be classified with respect to the kinds of goods they handle.

3. Do these classes include all the merchants in the city? What others are there?

4. Are these classes of goods distinct or do they overlap each other? Does the hardware store handle any goods that could also be bought at a grocery store or a dry-goods store?

The purpose of this chapter is not so much to give information as to outline a plan for study. The same method will be followed in later chapters, but the subject of this chapter is one on which information can so easily be found that about all the student needs in a text-book is a plan which he can fill out by his own researches. The aim in studying this chapter should be to secure some familiarity with the important articles of commerce. One cannot glance into a tariff act or converse with a merchant about his business without discovering that there are many varieties of merchandise; some

of these only a specialist need know, while others are matters of everyday intelligence.

The classification of goods that merchants make in the division of business between retail stores is based on the convenience of customers. A store handles a group of articles which satisfies the wants of a particular group of customers. Thus, grocery or provision stores handle the goods which will be wanted by those who have the ordering of food supplies for the household. This classification, as the discussion of the introductory questions may have revealed, differs in different places and is not anywhere very distinct.

Starting with the classification of goods as we find them in retail stores, we see one tolerably distinct group, namely, the foods. For our discussion of commerce it is necessary to include not only the food supplies found in grocery stores and meat markets, but also the articles from which these supplies are made. The trade in grain and in the animals whose flesh is eaten will be an important part of our study.

Another fairly distinct class is represented by the goods found in dry-goods stores. These are chiefly for clothing, though a considerable part of them goes to the furnishing of our homes. As they are almost without exception made by the process of weaving, it is convenient to call them textiles. The raw products coming under this class are the fibres, — cotton, wool, flax, silk, etc.

The next great class which it is convenient to recognize is the minerals, and they are most nearly

represented in retail trade by the hardware store. Coal, petroleum, iron, copper, and so on, through the list of products that are dug out of the interior of the earth, with the endless variety of things that are made from them, make a group easily separated from the two already named.

A fourth class is needed for articles not included in any of the three classes already named. Wood is neither textile nor mineral. Leather and animals other than those reared for food or wool are included in this fourth class. So also are the countless articles that are made partly of textile material and partly of mineral.

These four classes will be treated in order in the following three sections.

A classification on an entirely different basis should be noted at this point. All articles of commerce are frequently considered as falling into two great classes: raw materials or products, and manufactures. It is not always easy to discover the line between these two classes; but the thought is that raw products are those on which little work has been done beyond that necessary to get them from the earth.

Required Work

5. Define *goods, commodities, wares, merchandise.*

6. Define *food, grain, corn, cereal, vegetable, textile, mineral.*

7. In preparation for the study of the next three sections, see what information you can find in books about goods of the various kinds. Consult the commercial geographies of Chisholm, Gonner, and others; other

works on geography; the census reports and other government documents; the dictionaries and encyclopædias; and any other possible sources of information. The purpose of this question is merely to locate material for use later.

Optional Work

8. Classify thirty persons whose names you find in a directory and who are connected with some mercantile business. Do not select, but take the names as they come. Arrange under the four classes given in this section, with such subdivisions as seem to you best.

9. Make a classification of goods on the basis of the material of which they are composed — animal, vegetable, mineral — with subdivisions of each.

10. Make an attempt to learn the nature of the articles mentioned in one of the recent tariff acts of the United States. Notice how they are classified.

For Discussion

11. Is the classification adopted in this section a logical one? What is a logical or scientific classification? Is it ever useful to use any other kind?

§ 9. The Foods

1. What convenient subdivisions could be made of this section?

2. What title could be used if we wished to include liquors? Tobacco?

3. What is the character of the information you have found in books about how the foods are produced?

The foremost article of diet is bread, and the most highly civilized people use bread made of wheat flour. Wheat (1), therefore, may well head the

list of the food products. In the United States and western Europe wheat and wheat flour make gigantic items in the commercial statistics, both domestic and foreign. The grain of next importance is corn (2), though the value of the corn crop is considerably less than half of the value of the wheat crop. In some of the less civilized or less prosperous countries of the North Temperate Zone the bread used by the mass of the people is made from rye (3); but the trade in rye is not large because so much of the crop is consumed by the people who raise it. These three kinds of grain, together with oats (4) and barley (5), are sometimes all included under the name *breadstuffs;* in England they are all included under the name *corn.* The important grain in the tropics is rice (6). It is the chief food of a larger portion of the human race than any other one product. But here again, as with rye, the people who eat it are to a great extent also the raisers of it.

The most convenient name for the next group of foods is *vegetables.* The vegetable of prime importance in temperate countries is the potato (7). Because of inconvenience in carriage, the trade in potatoes is mostly local; they make a small item in international commerce. Peas and beans (8) require mention. The vegetables that are eaten green (9) make a large item in local commerce.

Among the animals whose flesh is used as food, cattle (10) are easily foremost. Before the invention of modern means of transportation commerce in cattle and meat was as purely local as that of green vegetables is now. But the trade in meat of all kinds

has recently grown to enormous proportions, even between countries separated by the seas. Hogs (11), sheep (12), and fowls (13) probably rank in the order mentioned. Fish, oysters, and other forms of animal life taken from the water (14) are of commercial importance. Then come the animal products, such as milk, butter, and cheese (15), eggs (16), and honey (17).

Some of our important foods remain to be included in a miscellaneous list. The first of these is sugar (18). Though it has come into use only within the last century or two, sugar now makes one of the largest items in the commerce of civilized countries. Molasses (19) is a by-product of sugar. Coffee (20), tea (21), and cocoa or cacao (22) are also large items in international commerce and rank in the order named. Other food products are spices (23), fruits (24), and salt (25).

There will be no better place than this to consider a few important articles which are not strictly foods. The liquors — wine (26), beer and other malted drinks (27), and spirits (28), — are prodigious items in the commerce of every country on the globe that has any commerce at all. The same is true of tobacco (29). Opium (30) is important in the trade of some countries, notably China. Medicines of all kinds may also be included here, though only one, quinine (31), will be noticed by itself.

Required Work

4. The following plan is suggested for the study of each numbered article in this and the two following sections. Each member of the class should study as thor-

oughly as possible one of the articles, or at least one of the three stages in its preparation. However, not all articles go through all of these stages.

(*a*) Production of the raw material: Countries which produce for export. Climate, soil, or other natural conditions necessary. Kinds of labor and implements required.

(*b*) Preparation for market: By whom and where done? The process, machinery, and labor. Transportation.

(*c*) Manufacture for final consumption: Into what finished goods does it enter as material? The process, machinery, and labor. Transportation.

For Discussion

5. Could the people in this city, living where they do, raise enough food to satisfy their hunger? Could the people of your state raise their own food?

§ 10. The Textiles

1. Name the materials of which textile fabrics are made.

2. What is the character of the information you have found in books about how the textiles are produced?

3. Could the people in this state raise enough wool to clothe themselves? Could they raise enough cotton? Silk?

The materials of which the foods are made require space for their production. It requires over an acre of good land to produce enough wheat to supply an average family with bread. A thousand families, if they eat bread in the same proportion as the one family, will use the product of a thousand times as much land, if the productiveness of the land be uni-

form. Nothing in the way of inventions or combination and division of labor can take the place of ground-area in the production of the staple foods. Therefore, when a country has an average population on good and bad land alike, of five hundred to the square mile, as in some portions of Europe, it is impossible for the people to raise their own food; they must get the materials for it from other countries where there is more room, and produce something which requires less room to exchange for these materials.

In this matter of requiring space for their production the foods are much alike, especially the grains. The textiles, however, exhibit the greatest diversity. Cotton and the fibrous plants uniformly require a considerable area, as do the grains; wool is most conveniently raised where the sheep can roam over vast tracts of sparsely settled and uncultivated land; silk, on the other hand, can be raised in great quantity within a small territory, as is shown by the fact that the silk-producing countries are all densely populated.

Another difference between the textiles and the foods is in the number of materials used, as compared with the number of products made out of them. The preceding section was largely devoted to an enumeration of the raw products from which food is prepared, and each of the products is used chiefly in the making of a single article of diet. The great textile materials have precisely the opposite characteristics; they are so few that they can be counted on the fingers of one hand, but the things made from them are

endless in number, and the materials are mixed in every conceivable way; no one of the materials makes a completed article that can be considered characteristic of it.

Still another difference may be noted. Of all the labor required to bring one of the food materials to the counter of a retail store to be sold to the final consumer, the production of the raw material makes a considerable part. In the textiles, on the other hand, the work of producing the raw materials is many times exceeded by the work of manufacturing them into shape for final use. As a result of this, the food materials are often manufactured into their final form near where they were produced; while the textiles are usually transported great distances, to go through the elaborate processes of manufacturing.

Wool (1) is grown in many parts of the world, but in almost endless varieties. Climate has an important influence on the quality of the wool. The selection and the mixing of various kinds of wool to make a particular fabric is an art in itself; the wool trade is a very complex one. The hair (2) of some animals is fine enough and long enough to be spun and woven. The most valuable is mohair, produced by the Angora goat.

Cotton (3) has become an important textile material only within the last century. There are a few clearly defined grades of cotton.

Then there are the fibrous plants (4) whose stalk, when freed from the woody substance, furnishes material that can be spun and woven; this process of extracting the fibres from the stalk is an interesting

one. Flax, from which linen is made, is the most important plant of this class. Others are hemp, jute, manilla, and sisal.

Silk (5) is a textile material for the production of which much labor is required, though probably more silk than wool can be produced on a given area of ground. It is therefore a suitable product for densely populated countries, especially as the work is light and can be performed by women and children at their own homes. The manufacturing of silk requires the finest machinery and the highest degree of skill; therefore it is carried on chiefly in the countries most advanced in civilization.

For Discussion

4. Why should Australia be the great wool-producing country? In what parts of the United States would you expect to find wool produced extensively?

Required Work

5. Study the numbered topics as suggested in the preceding section.

§ 11. Minerals and Others

1. Suggest possible classifications for the goods not included in the two preceding sections.

Iron (1) is to-day, as it long has been, a most important article of commerce in all countries; the implements of all countries and races alike are chiefly made of it. It is taken from the ground in the form of ore; next it is converted into pig-iron. The greater part of pig-iron is then converted into steel, which is handled as a commercial product in the

form of ingots. The largest single purpose to which steel is applied is the manufacture of railway rails. Next in importance is structural steel or materials for bridges, buildings, and the like. Machinery and tools include most of the other purposes to which steel is applied.

The metal ranking next in importance is copper (2), especially since electrical appliances require it so extensively. Unmanufactured copper in commerce is chiefly in the form of ingots or pigs. The most directly useful of the remaining metals are tin (3), lead (4), and zinc (5), though silver (6) and gold (7) more vitally concern commerce through their connection with the supply of money.

Of the non-metallic mineral substances, coal (8) is by far the most important; and in highly civilized countries its commercial importance is scarcely exceeded by any other one commodity, as it furnishes the motive power for manufacturing and transportation. Vast quantities of coal are consumed in the iron industries, and therefore the nearness of the coal mines to the iron mines is of the utmost importance. Coal, however, is such a bulky commodity that its commerce is largely local, crossing national boundaries only in exceptional cases.

Another mineral substance which has come into extensive use more recently than coal is petroleum (9). Its chief use is as an illuminant, but a large number of important by-products are made from it.

Mention of stone (10), salt (11), and asphalt (12) may complete the list of minerals. But crock-

ery (13) and glass (14) are two commodities of great commercial importance made from minerals.

The production of the mineral substances differs from other industries in two respects. First, it is dependent little, if at all, upon climate. Second, it can be carried on only where the natural supplies exist; though while the supplies last, the amount of product can be increased almost indefinitely. It is possible therefore for a dense population to find its occupation in extracting these products.

Turning next to the vegetable products, we easily select timber (15) as the first. It is so bulky and there is so much waste in manufacturing that unmanufactured timber is seldom carried far, except it be the more valuable varieties. Most countries except England and France have a good supply of timber at home, so that the commerce in timber is chiefly local. In other countries than these even the coarser manufactures of wood, such as furniture and building materials, are usually made from timber that is near the consumers. Cork, the valuable tropical woods, and the finely-wrought manufactures have a world-wide commerce.

A long list of miscellaneous vegetable products might be added, but only a few can be mentioned here. Rubber (16) has recently become a prominent article of commerce; extensive uses have been found for it, and the supply must be brought from tropical countries. Tar and turpentine (17) are allied products of the pine forests. Indigo may be mentioned to represent the class of vegetable dyes (18).

The only considerable class remaining is animals and animal products other than those used for food and weaving. The most important item is leather and manufactures of leather (19). In highly civilized countries more cattle will be needed for their hides than for their flesh. Furs (20) come from cold climates mainly, and are becoming scarce from the extermination of wild animals. Lard (21) and tallow (22) are used as food but also for other purposes. Feathers, hair, bones, whalebone, and ivory (23) may be mentioned.

Many articles are manufactured out of combinations of mineral, vegetable, and animal matter. Paper and books (24) make the largest distinct article of this kind. Combinations of the three elements in all proportions are found in chemicals, oils, and paints (25).

Required Work

2. Study the numbered topics as suggested in § 9.

Optional Work

3. Put the classification used in this chapter, or another that you prefer to adopt, into tabular form; add to it items that are omitted here; and include in it the titles of the schedules in a recent tariff act of the United States.

CHAPTER III.

THE FOREIGN COMMERCE OF THE UNITED STATES

§ 12. Articles Imported

1. Name some goods which you know were imported from foreign countries.
2. What reason can you suggest why these goods were not produced in the United States?
3. Is it probable that they will ever be produced in the United States?

Among the largest items in our imports are tropical products which are unsuited to our climate, such as coffee, tea, cocoa, sugar, molasses, caoutchouc, fibers, and fruits. There is no probability that their importance will ever diminish. On the other hand, improvement in transportation facilities may cause an increase, of which an example may be found in the importation of bananas during the last dozen years. Beet sugar is produced in temperate regions, and there is a possibility that it may sometime be so extensively produced in this country as to check or diminish importation. Tea is sub-tropical as well as tropical, and its cultivation in the United States is possible, as recent experiments have shown.

Certain products that come from the interior of the earth must also be imported because they cannot

be found in this country in available situations or in sufficient quantity or of the required quality. Among these are tin, some varieties of iron ore, platinum, potash and soda, diamonds and other precious stones.

Wool and hides are large items in our list of imports. Formerly we supplied our own market for hides and had a large surplus for export; even now there is a large home production. But in a thickly settled country the keeping of cattle is rarely carried on by itself; it is rather as a part of general farming; every farm maintains a few cattle, but usually only a few. The same is true to some degree of wool-raising. In sparsely settled countries where extensive tracts of vacant land are available for grazing, cattle and sheep can be raised in sufficient numbers not only to supply the home demand for hides and wool, but also to have a surplus available for export. Similarly, furs are found chiefly in new countries, and so must be imported by old countries.

Turning now from these raw products which must be imported, because the natural resources for them do not exist in our own country, we next consider manufactured articles for the importation of which social rather than physical causes must be found. In some instances a manufactured article is imported because the raw material is not to be found at home; but more frequently the materials required could be had if desired; the article is not produced because the disposition of the people, or their habits, or their government, or something else entirely within themselves, does not permit of it.

There is, in the first place, the willingness to do disagreeable work. It is said that the manufacture of linen has never been carried on extensively in the United States because our people will not handle the rotting flax. Then we have never shown a readiness to do elaborate handwork ; therefore we must import our toys, dolls, music-boxes, and carved ornaments. Long training in a trade, perhaps for generations back, with an apprenticeship continuing through youth with a father for a teacher, give surpassing skill in handwork ; but these are conditions that seldom exist here. Technical and trade schools are institutions rarely seen in this country, yet they are essential to some of the finest work in manufactures. Therefore we depend on foreigners for the better grades of millinery, dress goods, silks, laces, cloth for men's clothing, pictures, engravings and art work of all kinds, cutlery, chemicals, optical instruments, the smaller musical instruments, and so on. The labor problem is said to be one obstacle to the raising of tea in the United States.

So our imports fall into two very distinct classes : (1) Products for which nature has not given us the needful resources. As these are usually furnished by newly settled or tropical countries, most of them come from the hands of people little skilled in manufacturing, and therefore reach us in a raw condition. (2) Elaborately wrought goods requiring work in which the people of the United States are not proficient. The largest items in our imports, divided into these two classes, are given in the following table : —

IMPORTS FOR YEAR ENDING JUNE 30, 1898

S. A., 1898, 189–220

Largest Items of Raw Products

Article	Value	Per cent of all imports
Coffee	$65,067,631	10.7
Sugar	60,472,749	9.8
Chemicals (mostly raw)	41,471,291	6.7
Hides	37,068,932	6.0
India rubber	25,386,010	4.1
Wool and hair[1]	16,783,692	2.7
Fruits and nuts	14,566,950	2.4
Fibers and textile grasses	13,446,186	2.2
Total	$274,263,441	44.6

Largest Items of Manufactures

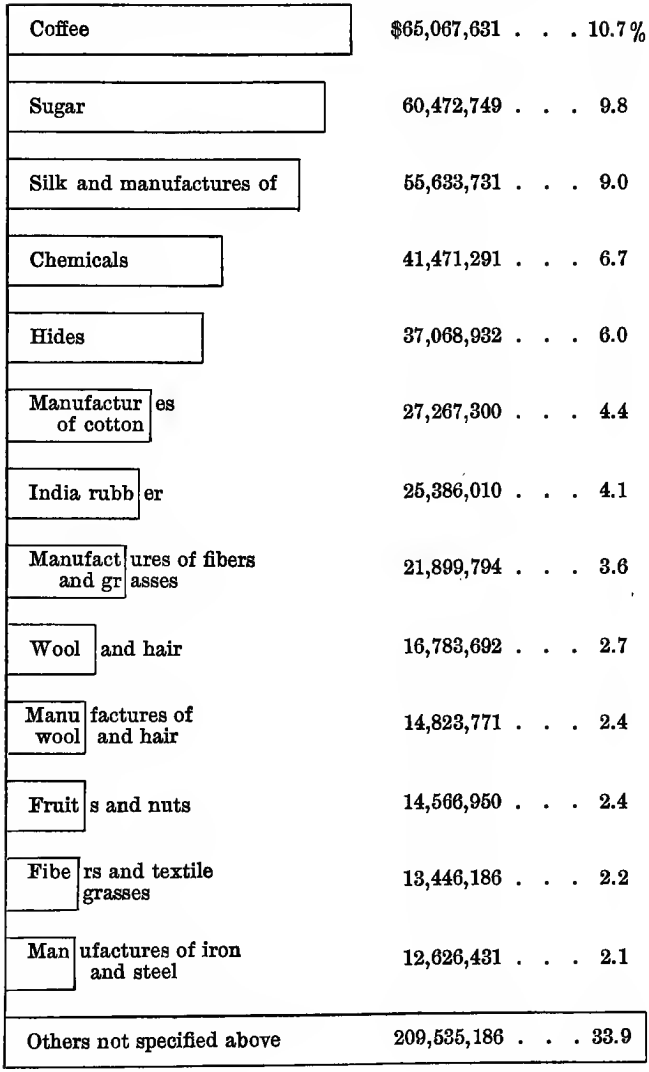
Silk and manufactures of silk	$55,633,731	9.0
Manufactured cotton	27,267,300	4.4
Manufactures of fibers and grasses	21,899,794	3.6
Manufactures of wool and hair[1]	14,823,771	2.4
Manufactures of iron and steel[1]	12,626,431	2.1
Total	$132,251,027	21.5

Summary of Imports

Raw products	$274,263,441	44.6
Manufactures	132,251,027	21.5
Other products not specified above	209,535,186	33.9
Total imports	$616,049,654	100.

[1] Owing to the new tariff law of 1897, the import of wool and hair for 1898 was exceptionally small. The same was true, though to a less degree, of iron and steel.

CHART SHOWING IMPORTS FOR 1898



As time passes, the proportion of manufactured goods in our imports may be expected to decrease. Greater density of population will drive some workers to the occupations not now carried on because they are disagreeable, technical schools are gradually being established to supply the trained experts, and even the skilled handwork which can only be learned by working with those who follow it themselves will in time be developed. In other words, as we become an older country we shall learn to make the finely wrought goods which we do not now make for ourselves. But our importation of raw products must increase with the growth of our population. The changes which time will bring in the volume of our imports of these two classes of articles are foreshadowed roughly in the chart on the opposite page.

Required Work

4. Make a table similar to the one on page 40 for some other year than 1898. Include all items of over $10,000,000.

Optional Work

5. Make a chart similar to that on page 41 for some other year than 1898.

6. Make a chart similar to that on page 43 for some other article than wool or tin plate.

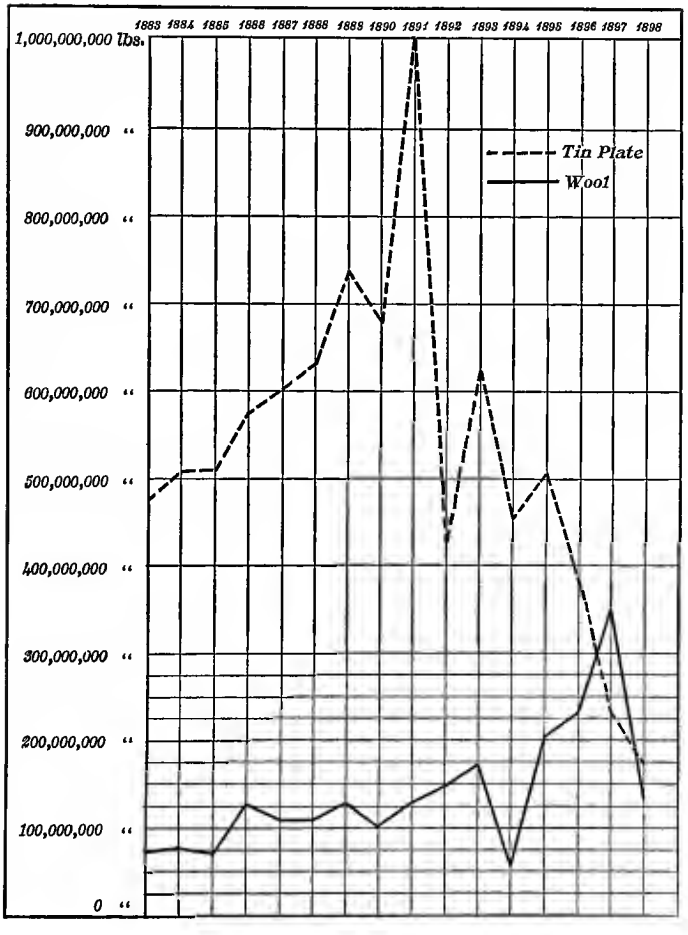
For Discussion

7. The prospects of the beet-sugar industry in the United States.

8. Present condition of the wool-growing industry.

9. Give examples, from your own experience or obtained from business men, of goods which were formerly imported but are now made in the United States.

IMPORTS OF WOOL AND TIN PLATE INTO THE UNITED STATES FROM 1883 TO 1898



§ 13. The Tariff

1. Define *tariff, duties, customs, ad valorem, specific, protection, free trade.*

2. What is tariff for revenue only? Can there be import duties which would give protection but no revenue?

Most of the import duties levied by the United States combine revenue and protection; in fact, we have about every possible degree of combination of these two elements. Our system is sometimes described as "tariff for protection with incidental revenue," and sometimes as "tariff for revenue with incidental protection."

It was formerly customary for governments to levy duties on both imports and exports; now duties on exports are very rare, while duties on imports are almost universal. As a general thing, each independent nation levies duties at its frontier only, leaving trade unrestricted between the interior divisions. The large colonies of the British Empire, however, such as Canada, have their own tariffs; and in most other cases throughout the world a dependency has a different tariff from the ruling country. The tariff of the United States applies to the states and territories alike, but not to the islands acquired from Spain; within the borders there is absolutely free trade.

The United States has had high tariffs since the beginning of the Civil War. A few years after the war was over the purely revenue duties were given up, with one or two exceptions. In 1898 a duty of

ten cents a pound was imposed on tea to secure revenue for the Spanish War. But the protective duties have nearly all been retained; in some instances they have been raised, and many new ones have been imposed.

For about ten years our most prominent political question was that of raising or lowering the tariff. In 1886 President Cleveland sent a message to Congress strongly urging a reduction of the tariff. The house was Democratic, and passed a bill in line with the President's message; this was known as the Mills Bill, taking its name from the chairman of the Committee of Ways and Means in the House, which always prepares the tariff bills. The Senate was Republican, and defeated the Mills Bill. The campaign of 1888 resulted in the election of Harrison as President and in the election of a Republican majority in the House. In this House William McKinley was chairman of the Ways and Means Committee; under his guidance a bill was prepared and became a law October 1, 1890. The McKinley Act was strongly protective, but it put sugar on the free list. The election of 1892 made Cleveland President again and made both houses of Congress Democratic. As a result of this the Wilson Bill became a law August 28, 1894. It reduced the duties considerably and put wool on the free list, but restored the duty on sugar. The election of 1896 put the Republicans in power, with McKinley as President. The Dingley Bill, the chief feature of which was the restoration of the duties on wool, became a law July 24, 1897, and is still in force (1901).

Required Work

3. Write a list of the schedules in a recent tariff act and explain briefly what articles are included under each.

4. Give a statement in your own words of the rates of duty on one article in the following list. If possible, compare the rate in two or more tariff acts.

Artists' paint	Perfumery, etc.	China
Iron ore and pig-iron	Railroad rails	Wire
Knives	Guns	Nails
Watches	Boards	Sugar
Molasses	Tobacco	Wheat and corn
Dairy products	Fish	Fruits
Nuts	Wine	Cotton cloth
Handkerchiefs	Stockings	Laces
Wool	Dress goods	Carpets
Silk	Books	Hides
Gloves	Shoes	

For Discussion

5. Name ten important articles in the free list.

6. Account for the great fluctuations in the importation of wool and tin plate, as shown in the chart on page 43.

7. Is the duty on sugar protective? (See S. A., 310, 311.)

Optional Work

8. Trace in the tables of imports the effect of some change in rates of duty, as in exercise 6 for wool and tin plate.

9. Read one of the final chapters in Taussig's "Tariff History of the United States."

§ 14. The Source of our Imports

1. Name the countries which you know send us some of the important articles in our import trade.

2. What countries would you expect to find the source of our imported hides? Wool? Musical instruments? Cloth?

The discussion under § 12 gives the clew to the important sources of our imports. One great class of articles which our climate will not produce are those of tropical countries. The countries to which we must look for them are those sufficiently civilized to carry on steady industry. Tropical Africa is at once seen to be of little importance. China, India, the East India and the West India Islands, Central America, and the northern part of South America furnish our tea, coffee, cocoa, sugar, spices, and tropical fruits — some of our staple articles of food.

For wool and hides we must look to newly settled countries in the temperate zones. There are four of these: one in the northern hemisphere — Russia — and three in the southern — southern South America, South Africa, and southern Australia. They all send us wool or hides, or both, except South Africa, which is too new and too much engaged in digging diamonds and gold.

The bulk of our imported manufactures comes from a very small portion of the earth's surface. Only three foreign countries possess the skill to make much that we care for, — Great Britain, France, and Germany. Great Britain contributes about one-third of our imports of manufactures, yet is smaller than the state of Oregon; France and Germany each contribute about one-sixth, yet each has a smaller area than Texas. Belgium and Switzerland

send a fair quota in proportion to their size; one has a French population, the other mostly French and German. Of the remaining European countries, Italy comes next, but far in the rear. Of more importance than Italy are the Oriental countries, — India, Japan, and China.

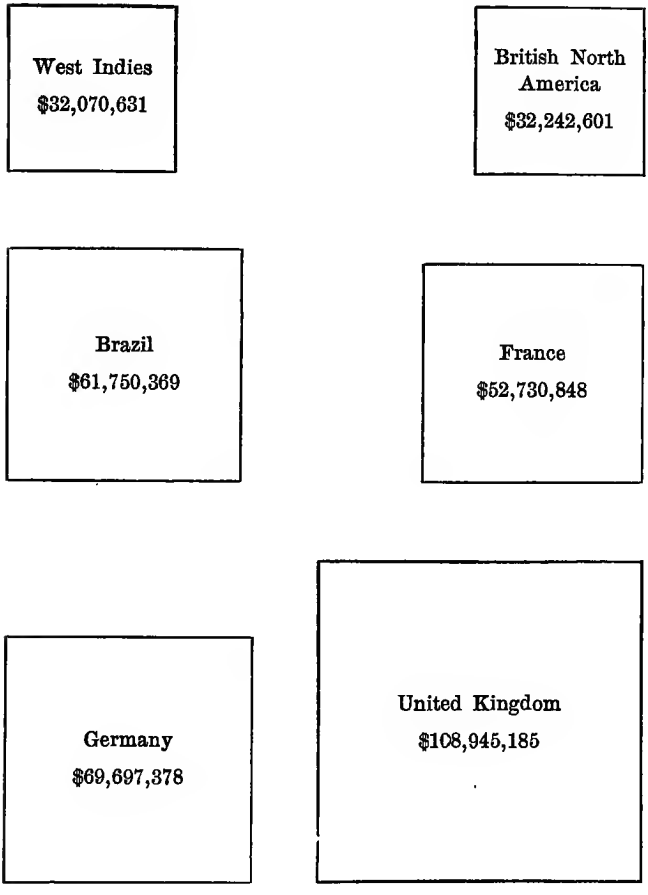
The accompanying table and chart show the distribution of our imports by countries of origin : —

IMPORTS OF THE UNITED STATES BY COUNTRIES, FOR YEAR ENDING JUNE 30, 1898

C. & N., 1898, LX-LXV AND LXXXIV-LXXXIX; S. A., 1898, 98-123

Countries	Value of imports	Per cent of total imports	Largest item	Value
United Kingdom	$108,945,185	17.67	Manufactures of fibers, vegetable and textile grasses	$18,099,281
Germany	69,697,878	11.34	Manufactured cotton	7,817,923
Brazil	61,750,369	10.02	Coffee	41,119,902
France	52,730,848	8.56	Manufactured silk	10,842,946
British North America	32,242,601	5.23	Wood	8,997,824
West Indies	32,070,631	5.21	Sugar-cane	18,642,441
British East Indies	27,238,459	4.42	Manufactures of fibers, vegetable and textile grasses	5,221,006
Japan	25,223,610	4.10	Raw silk	16,453,406
Italy	20,832,637	3.30	" "	6,227,004
China	20,326,436	3.30	" "	7,506,409
Mexico	19,004,863	3.08	Fibers, etc.	5,400,059
Hawaiian Islands	17,187,380	2.79	Sugar	16,660,109
Dutch East Indies	14,529,335	2.36	Sugar	11,112,150
Netherlands	12,525,065	2.03	Tobacco	8,635,863
Switzerland	11,380,835	1.85	Manufactured cotton	4,856,709
Other countries	90,863,022	14.74		
Total	$616,049,654	100.		

IMPORTS OF UNITED STATES BY COUNTRIES, FOR YEAR ENDING JUNE 30, 1898



Required Work

3. Write a paper on the imports of the United States from some foreign country. Include in it a chart similar to that on page 43 (coördinates), letting the undulating line represent the total imports.

Optional Work

4. Prepare a table like that on page 48 for some other year than 1898.

5. Make a chart like that on page 49 (squares) for some other year than 1898.

6. Make a chart on the plan of that on page 41 (parallelograms) for our imports from each country from which we get goods amounting to $10,000,000 or over.

7. Make a chart (parallelograms or squares) for one of the following products, showing the amount we get from the various countries. The figure immediately after some of the items indicates the number of varieties; a separate chart may be made for each, or the figures for the varieties may be combined. The other figures indicate the page in C. & N., 1898, where the amounts are given.

Art works	76	Books	81
Cocoa	103	Coffee	104
Manufactures of cotton, 6	107	Earthenware, 2	112
Feathers, 3	116	Furs	135
Hides of cattle	145	India rubber (unmanufactured)	148
Tin plates	153	Diamonds	159
Jewelry	160	Paper	178
Rice	186	Manufactures of silk, 4	192
Cane-sugar	202	Tea	204
Tobacco (leaf)	205	Cigars	207
Toys	208	Wines, 3	213
Wool, class 1	223	Manufactures of wool, 4	226
Wool, class 3	225		

Figures for sugar and wool are also given in S.A., 1898, 307 and 313.

§ 15. Articles Exported

1. From your knowledge of our industries, what goods would you expect to find produced in excess of the home demand?

2. When the country has what we call "hard times," and prices are low, what results in our export trade may be expected?

The United States occupies a territory richly endowed by nature. No other country includes within its boundaries an equal extent of the natural resources peculiar to the Temperate Zone. And these resources are being worked by a people of a high degree of industrial efficiency. Western Europe is so densely populated that the land is unable to furnish the food and other raw material sufficient to maintain its inhabitants; manufactures are a necessity that there may be goods to send abroad in exchange for the raw material of other countries. The United States, on the other hand, is still thinly settled; about half of the people are engaged in agriculture, mining, lumbering, cattle-raising, or other industries that draw directly from the earth. This one-half produces much more than the other half can use. Furthermore, the Atlantic is a narrow ocean, with splendid harbors on both sides. It is, therefore, evident that an extensive trade will be carried on between the United States and Europe; it is also evident that this trade will consist largely in the exchange of American raw produce for Europe's manufactured goods. We have already seen that a large part of our imports

consists of the finer European manufactures; we shall now see that our exports consist in a still greater degree of the raw products peculiar to our zone, or of these products only slightly altered from the form in which they were removed from the earth.

The largest single item in our exports is cotton. The southern coast of the United States is the richest cotton-producing region in the world. So much of the world's cotton comes from there that when the Southern states were blockaded during the Civil War cotton and all cotton goods rose to famine prices. Another large item is petroleum. In this, also, the United States has enjoyed almost a monopoly, though now a petroleum region in the vicinity of the Black Sea is being worked. Wheat and wheat flour make another gigantic item; no other country exports so much wheat, though several are rapidly gaining on us. Another great sum is piled up by the export of cattle and hogs, with their various products, such as dressed beef, tallow, lard, hams, and bacon.

Up to 1893 these articles, with a few other raw products, constituted four-fifths of our exports. Goods requiring much work in their manufacture were of slight importance. We exported some agricultural implements, a few locomotives, and some plain cotton cloth; there was little else. Since the panic of 1893, however, there has been a remarkable increase in our export of manufactured goods. This is especially noticeable in goods made of iron and steel. During the long depression the home

market was dull, new enterprises were not started, little building was done, little new machinery was wanted, few railroads were built. In such a time all business is dull, but especially the iron industry. The manufactures, therefore, sought markets abroad, the more so, as it was a time of prosperity in most other countries. Now that a time of prosperity and higher prices at home has come, our export of manufactured goods may decline slightly; but it will never go back where it was before 1893. As our country becomes more thickly settled, the surplus of raw products will be less and their export must diminish; the denser population will drive more people into manufacturing, while skill in manufacturing will gradually increase. An export of manufactures will thus slowly replace a portion of our export of raw products, our place in the latter being taken by the newer countries, — Argentina, Australia, Siberia, and South Africa, — as it has already been taken by them in the export of hides and wool.

American laborers are at their best in the use of machinery; every Yankee seems to be a born mechanic. There are two causes of this: the peculiar nervous temperament induced by our stimulating climate, and the qualities bred in us by two centuries of pioneer life. In number of inventions and skill in using them the United States surpasses all other countries. Therefore, the manufactures exported are those in which machinery plays an important part.

The leading articles in our exports, and their relative importance, are shown in the table and chart following:—

DOMESTIC EXPORTS OF THE UNITED STATES, FOR YEAR ENDING JUNE 30, 1898

S. A., 1898, 92; C. & N., 1898, CXXXVIII–CXLII

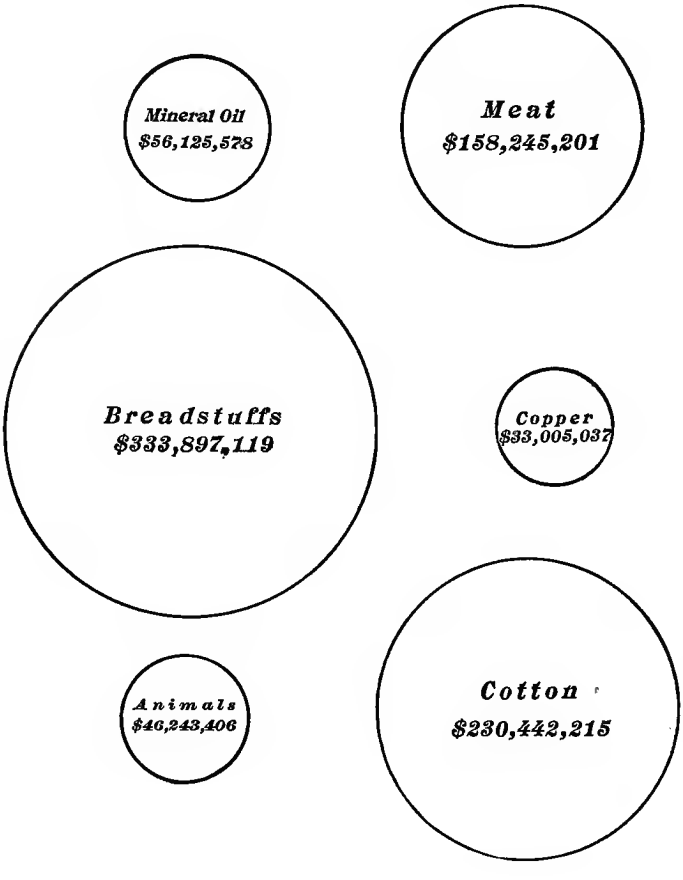
Raw or slightly manufactured products	Value	Manufactured products	Value
Breadstuffs	$333,897,119	Iron and steel	$70,406,885
Cotton	230,442,215	Leather	21,113,640
Meat products	158,245,201	Cotton manufactures	17,024,092
Mineral oil	56,125,578	Wood manufactures	9,098,219
Animals	46,243,406	Chemicals	8,655,478
Copper	33,005,037	Agricultural implements	7,609,732
Agricultural products not otherwise specified	30,869,137	Cycles	6,846,529
Lumber and timber	28,415,033	Other manufactured goods	67,084,827
Cotton-seed products	22,719,153		
Tobacco	22,171,580		
Forest products not otherwise specified	9,485,138		
Dairy products	9,095,759		
Miscellaneous	21,738,155		
Total	$1,002,452,511	Total	$207,839,402

SUMMARY OF EXPORTS

Domestic merchandise		$1,210,291,913
Raw products	$1,002,452,511	
Manufactured products	207,839,402	
Foreign merchandise		21,190,417
Total exports		$1,231,482,330

In the tables of exports of the United States the term *foreign merchandise* occurs. This means merchandise that was not produced at home, but was imported from some foreign country and is now exported.

EXPORTS OF THE UNITED STATES BY ARTICLES, FOR YEAR ENDING JUNE 30, 1898



Required Work

3. Select the ten largest single items in our list of exports. Arrange in order of value in a table thus: —

Article	Quantity	Value
—	—	$ —

Let the eleventh item be "All other exports." Then give the total value at the bottom.

Optional Work

4. Make a chart on the plan of that on page 43 (co-ordinates), showing for a series of years the export of one article in the following list. See S. A., 1898, 164–88.

Agricultural implements	Boards, etc.	Wood, total
Wheat	Cattle	Corn
Copper	Wheat flour	Patent medicines
Steel rails for railways	Cotton, unmanufactured	Cotton cloth, colored
Leather goods	Builders' hardware	" " uncolored
Paper	Mineral oils	Total iron and steel
Butter	Beef products, 5	Cotton-seed oil
	Cheese	Hog products, 5
		Leaf tobacco

5. Make a table similar to the one on page 54 for some other year than 1898.

6. Make a chart (parallelograms, squares, or circles)

showing the comparative values of the six largest items in our exports.

7. When making the table in exercise 3, find what per cent each article makes of the total and put the per cents in a fourth column on the right-hand side.

8. Make a colored chart based on the per cents given in C. & N., 1898, xxix. Mark off a row of columns or bars of equal length, each representing the entire exports for a year. Then let one color represent agricultural products exported, another the manufactures, and so on, and give each column its proper proportion of each color. It might be well to combine "mining," "fisheries," and "miscellaneous."

9. Make a study of the export of foreign merchandise from the United States.

For Discussion

10. Which items in the table prepared under exercise 3 may be expected to increase in the future and which may be expected to diminish?

§ 16. Destination of our Exports

1. From the study of the preceding section, to what countries would you expect to find that our exports are sent? Would the destination of the manufactured goods probably be different from that of the raw products?

We must now recall the principle that commerce carries the goods of the world to those places or people who want them the most, that is, who are ready to give the most for them of the things that other people want. What are the countries that are most ready to give what we want (tropical products and goods requiring skilled handwork) in exchange for what we have to offer (machine-made goods and the raw products of the Temperate Zone)?

One answer has already been given in the preceding section. The great industrial nations of western Europe, with their dense populations, need our raw products; they are ready to give us their hand-manufactured goods; the Atlantic makes a good highway between us. So our wheat, flour, cotton, meat, petroleum, etc., go largely to the western coast of Europe. Great Britain, that gigantic hive of manufacturing, alone takes about half, an amount equal to $14 worth for each inhabitant; Belgium, with her 580 inhabitants per square mile, — the densest population in the world, — takes about $6 worth for each inhabitant.

In tropical countries the conditions of western Europe are reversed. Nature produces luxuriantly, there is little need to look elsewhere for raw products. But the people are indolent and possess little skill. Extensive manufacturing is therefore out of the question; everything beyond the rude home-made goods must come from the industrial nations of the North. So it is in the tropics that our growing manufactures find an outlet. Railway and bridge supplies have recently found their way to South America, China, and Africa; a large order for bridges over the Nile River was lately secured by an American firm. Cotton cloth, both white and printed, is wanted everywhere in the tropics, but our export market for it is chiefly in China and the Spanish American countries. Our agricultural machinery is in use the world over, even in western Europe.

The distribution of our exports is shown in the table and charts following:—

EXPORTS OF THE UNITED STATES BY COUNTRIES, FOR YEAR ENDING JUNE 30, 1898

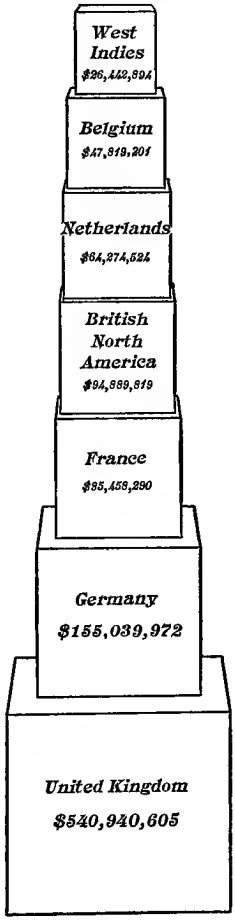
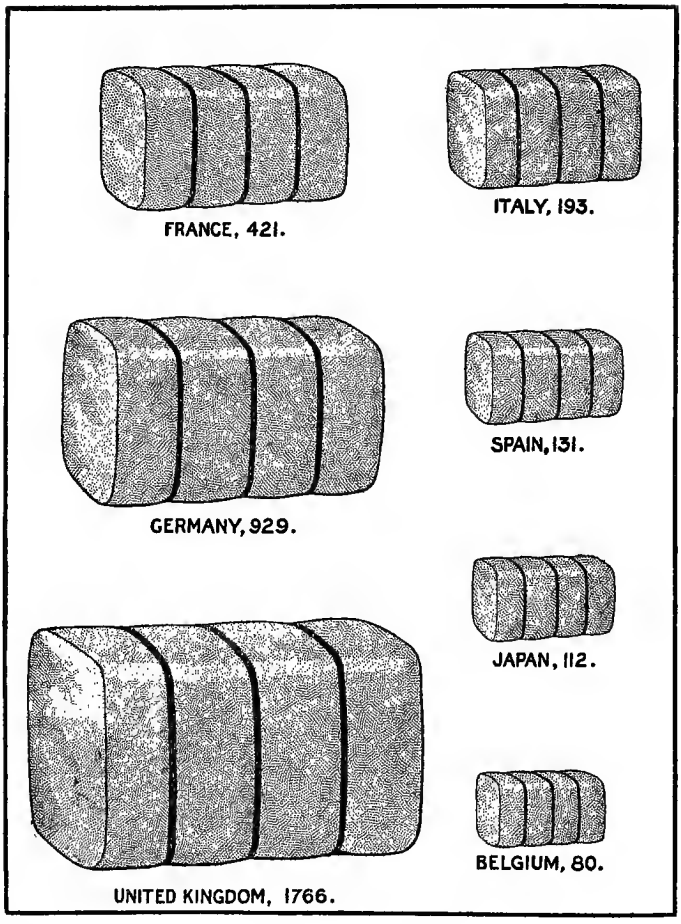


CHART SHOWING RELATIVE AMOUNTS OF COTTON SENT TO VARIOUS COUNTRIES

S. A., 1898, 277

The figures represent millions of pounds



EXPORTS OF THE UNITED STATES BY COUNTRIES, FOR YEAR ENDING JUNE 30, 1898

S. A., 1898, 93–123; C. & N., 1898, LX–LXV AND CLII–CLVII

Countries	Value of exports to	Per cent of total exports	Largest item	Value
United Kingdom	$540,940,605	43.93	Cotton	$105,588,614
Germany	155,039,972	12.59	Cotton	54,886,245
France	95,459,290	7.75	Wheat	32,566,250
British North America	84,889,819	6.90	Corn	7,850,840
Netherlands	64,274,524	5.22	Copper	8,081,661
Belgium	47,619,201	3.87	Wheat	10,631,809
West Indies	26,442,894	2.15	Wheat flour	5,542,094
Italy	23,290,858	1.89	Cotton	11,468,025
Mexico	21,206,939	1.72	Iron and steel	5,004,590
Japan	20,885,541	1.66	Cotton	7,428,226
British Australasia	15,609,863	1.27	Iron and steel	3,246,341
Brazil	13,317,036	1.07	Wheat flour	8,240,362
Denmark	12,697,421	1.03		
British Africa	12,027,142	.98		
Spain	10,228,545	.83	Cotton	3,130,970
China	9,992,894	.81	Cotton	5,195,845
Other countries	78,059,786	6.33		
Total	$1,231,482,330	100.		

There are a few exceptions to the rule that tropical countries do not take raw products. Petroleum is not found in the tropics; it is a cheap illuminant and easily handled; they therefore buy more of it from the United States than of any other one article. It is exported in tin cans and sold by dealers in minute quantities. For some reason tropical America also imports from the United States considerable quantities of flour, lard, and other provisions.

Required Work

2. Write a paper on the exports of the United States to some foreign country. Include in it a chart similar to that on page 43 (coördinates) to represent the amount of exports to that country for a series of years.

Optional Work

3. Prepare a table like the one on page 61 for some other year than 1898.

4. Make a chart like the one on page 59 for some other year than 1898.

5. Show the same information in a chart on some other plan (parallelograms, squares, circles, or other geometrical figures, plane or solid).

6. Make a chart for one of the products named on page 56 so as to show the proportions sent to the various countries. The chart may be on any one of several plans.

For Discussion

7. Why do tropical countries import flour, lard, and other provisions?

8. With which countries is our export trade likely to increase the most? Why?

§ 17. The Balance of Trade

1. Define *balance of trade.* What is meant by a *favorable* balance, or a balance in our favor? An *unfavorable* balance, or a balance against us?

In § 7 it was stated that a nation's buying equals its selling; but in no year do the exports of the United States equal the imports. Even when a num-

ber of years are put together, no tendency toward equality appears. For many years an excess of exports of about $130,000,000 was the average result. During the depression following the panic of 1893 the favorable balance rose to several times this sum. On the surface of things the United States appears to sell from one-tenth to one-half more than it buys.

To account for this it is necessary to recall that other things than goods are sometimes bought and sold. One of these things is labor. The work of carrying our exports over the Atlantic and bringing our imports back is performed chiefly by foreigners; a part of our excess of exports goes to pay these foreign ship-owners and seamen for their services. Many Americans travel or live in Europe, still drawing their incomes from this side; another portion of our exports goes to pay their expenses. Foreigners have invested or lent large sums of money in this country, and the interest or profits are sent abroad, with an occasional remittance to pay principal; these sums are also really paid out of the excess of exports. Finally, recent immigrants often send money to relatives in the old country; this is not a purchase so much as a gift, but the country pays for the gift with exports, receiving nothing in return except the goodwill of these old-country relatives. There is no means of knowing how much each of these factors amounts to in causing an excess of exports and a "favorable" balance of trade. A great part of the enormous balances from 1895 to 1900 was probably due to the purchase by Americans of American securities held abroad.

In comparing the imports with the exports another curious fact appears. The exports to Europe exceed the imports from Europe two or three times over, while the exports to the tropics amount to only a small fraction of the imports from them. Europeans pay us for our raw products only in part by sending us their manufactures; the remainder they pay by sending their manufactures to tropical countries. The tropical countries take pay for their goods sent to us partly in our own manufactures, but more in these European manufactures. This three-cornered arrangement will doubtless tend to disappear in the future. Europe will receive less of raw products from us, and we shall send more manufactured goods to the tropics.

The situation in 1898 is represented in the table and charts on the three following pages.

The coördinate chart shows the course of our total imports and exports, and therefore of the balance of trade, for the last fifty years. Although the imports and exports never exactly equal each other, yet they keep very close together. And it cannot be otherwise; our buying must equal our selling in the long run. Nothing is more certain than that the enormous excess of exports during the last four years cannot be kept up.

Optional Work

2. Make a table like that on page 65 for some other year than 1898.

3. Make a chart like the one on page 66 for some other year than 1898. Like the one on page 67.

COMMERCE OF THE UNITED STATES BY COUNTRIES, FOR YEAR ENDING JUNE 30, 1898

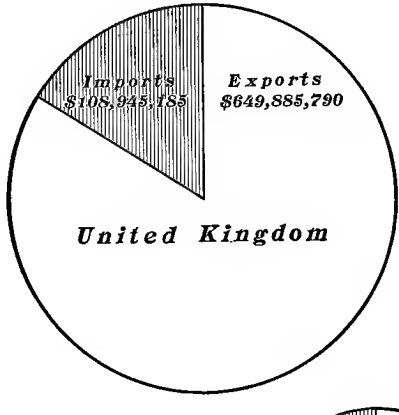
S. A., 1898, 93–122

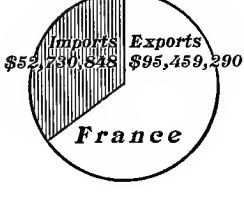
Countries	Imports		Exports		Total Trade	Per Cent†	Balance
	Value	Per Cent*	Value	Per Cent*			
United Kingdom . . .	$108,945,185	16.8	$540,940,605	83.2	$649,885,790	35.18	$431,995,420+
Germany	69,697,378	31.0	155,039,972	69.0	224,737,350	12.16	85,342,594+
France	52,730,848	35.6	95,459,290	64.4	148,190,138	8.02	42,728,442+
British North America .	32,242,601	27.6	84,889,819	72.4	117,132,420	6.34	52,647,218+
Netherlands	12,525,065	16.0	64,274,524	84.0	76,799,589	4.15	51,749,459+
Brazil	61,750,369	82.3	13,317,036	17.7	75,067,405	4.06	48,433,333−
West Indies	32,070,631	54.8	26,442,894	45.2	58,513,525	3.17	5,627,737−
Belgium	8,741,826	15.6	47,619,201	84.4	56,361,027	3.05	38,877,375+
Japan	25,223,610	56.0	20,385,541	44.0	45,609,151	2.47	4,838,069−
Italy	20,332,637	46.6	23,290,858	53.4	43,623,495	2.36	2,958,221+
Other countries	191,789,504	54.5	159,822,590	45.5	351,612,094	19.04	31,966,914−
Total	$616,049,654		$1,231,482,330		$1,847,531,984	100.	$615,432,676+

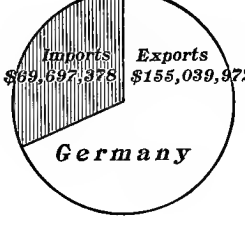
* These figures show how the total trade with any one country is divided between imports and exports.

† These figures show how large our total trade with any one country is in proportion to our trade with all countries.

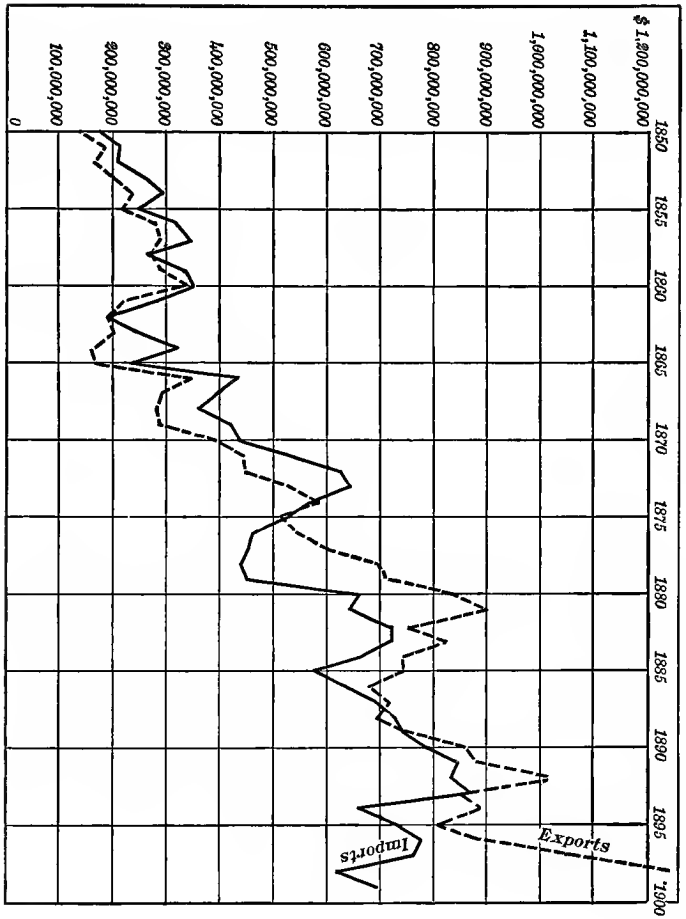
COMMERCE OF THE UNITED STATES BY COUNTRIES, FOR YEAR ENDING JUNE 30, 1898, SHOWING IN ADDITION THE BALANCE OF TRADE







IMPORTS AND EXPORTS OF THE UNITED STATES FOR FIFTY YEARS



4. Show the same information in a chart of some other form.

5. Make a chart (coördinates) like the one on page 67, for the last ten years. Get the data from the figures in the government publications.

For Discussion

6. Does the water that flows into a tank often equal at any one moment the amount that flows out? How about the inflow and outflow for a year?

7. Is an excess of exports desirable? Would it be desirable to sell and never buy, to have all exports and no imports? How would it be with the buying and selling of an individual? With the inflow and outflow of a tank?

CHAPTER IV.

THE COMMERCE OF OTHER COUNTRIES

§ 18. The United Kingdom

1. What goods have we already noticed or do you already know of as being sent to England or coming from England?

2. Considering England's dense population, what must be the nature of her foreign trade?

Great Britain and Ireland have uniform customs and trade regulations; they therefore stand as one country in the commerce of the world. It is not strictly correct to speak of this trade as English, though England has the larger part of it.

The United Kingdom affords the one great example of perfect free trade. This does not mean that there are no import duties, but only that the import duties are so laid as to have no protective effect. Goods subject to duty are of two classes, those that can be produced within the kingdom and those that cannot. In the latter class come the tropical products, — tea, coffee, and tobacco. Tobacco could perhaps be raised in England, but its cultivation is prohibited by law; this curious provision dates from the founding of the English colonies in America, when its purpose was to give the colonies a monopoly of the tobacco market, though it is now

retained solely for the sake of revenue. The duties on this class of goods are revenue duties pure and simple. The only prominent example of goods of the first class — those that can be produced in the country — is liquors. Wine, beer, ale, and spirits are subject to heavy import duties, but these duties are counteracted by internal taxes that are exactly equal to them. Thus the gallon of whisky imported may pay a duty of eleven shillings; then the gallon of whisky made in England must also pay eleven shillings; the consumer is left free to use the foreign or the domestic article at his pleasure. The list of dutiable goods is a short one; the great bulk of goods, both raw and manufactured, with the exception of those named above, are free of duties and taxes.

The growth of British trade during the nineteenth century was phenomenal. To begin with, the Revolutionary and Napoleonic wars kept Continental Europe in a ferment for a quarter of a century; resources and men were turned from industry to fighting; for ten years England blockaded the western coast, held control of the sea, and cut off the countries subject to or allied with Napoleon from commerce with the rest of the world. The colonies of these countries in Asia, Africa, and South America, which had heretofore been restricted by navigation laws to trade with the mother countries, were now seized by British authorities or opened to British commerce. It should be remembered that England was at this time using the new machinery and making manufactured goods for a fraction of their former cost. When Napoleon was disposed of, and Europe

settled down to peace again, it was found that English goods had penetrated to every quarter of the globe; Napoleon had even violated his own regulations and clothed his own armies in English cloth. Then by successive measures, from 1846 to 1860, the British government adopted free trade, and her commerce took another great bound forward. The lead thus secured has always been maintained. We have already noticed that the United States has far more trade with the United Kingdom than with any other one country; we shall find this condition repeated in every other country that we shall study. The world's commerce centers in England.

In the preceding section we noticed the large excess of exports in the United States and some of the reasons for it. In England the opposite situation exists. There is a constant excess of imports. To explain it is to name again two of the factors mentioned in connection with the United States. The carrying trade of the world is largely in British hands; part of this excess of imports is to pay these British ship-owners and seamen. Then, too, England is the great creditor nation, with large loans and investments in every country except France and Germany; part of the excess of imports is to pay interest or profits on these foreign securities held in England, *i.e.* to pay Englishmen for the use of their capital.

As England is densely populated, her imports must consist mainly of raw products. A large part of these are materials to be manufactured for export. The British Isles raise no cotton, but England manufactures and exports more cotton cloth than any

other country in the world. Wool is another great item among imports, though some wool is raised at home. Three lines of English exports stand preëminent in both quantity and quality. Since the religious troubles of two hundred years ago drove so many weavers from France, Belgium, and western Germany to England, the latter country has had the lead in the manufacture and export of woolen cloth. It was in England that the machinery for making cotton cloth was invented and first put into use, and the bulk of the export business for the world has since been done there. Then in the north of England the iron and coal mines are situated close together; nearness to the sea makes it easy to get other ores from Spain and Sweden; add to these advantages of situation the advantages of an early and extensive use of machinery, with a liking among the people for large undertakings, and there results British preëminence in manufactures of iron.

The British government imposes no restrictions on the trade of its colonies; they may trade with other countries of the world as freely as with England herself. Some of them, like Victoria and Canada, having self-government, impose protective duties on imports, including those from the mother country. But the trade relations between the colonies and the mother country have always been close. Patriotic sentiment doubtless counts for something. The commercial classes in most of them are people of nearly pure British descent and not long removed from the home soil; they still retain a preference for English goods. The civil and military officers from home

are a small class, but very influential in setting the tastes and habits of the colonies. British merchants naturally regard the colonies as their own domain, and make special efforts to keep their trade. In these efforts the government coöperates by subsidizing steamship lines to connect the colonies with each other and with Great Britain.

Required Work

3. Make a table like one of those given in this section for some other year than 1898. The figures can be found in the Annual Statement of the trade of the United Kingdom, the Statistical Abstract of the United Kingdom, the Commercial Year Book, and the Statesman's Year Book.

4. Express the large items of your table in the form of a chart (parallelograms, squares, circles, or cubes).

Optional Work

5. Make a table of the countries from which the United Kingdom gets its supply of breadstuffs. Of cotton.

6. Express this information in the form of an illustrated chart like that on page 60.

7. Read Mongredien's "History of the Free-Trade Movement in England."

8. Make a list of the articles subject to duty on entering the United Kingdom. See A. S., 1898, 271–8, and S. A., 1896, 26 and 27.

9. Study the British steamship subsidies. On a small map of the world color the British possessions, and indicate the lines of regular steamers connecting them. See Report of the Commissioner of Navigation of the United States for 1899.

10. References: Chisholm, 207–32, (30–44); Gonner, 109–30; I. G., 138–96.

IMPORTS OF THE UNITED KINGDOM BY ARTICLES, FOR 1898

COMPILED FROM ANNUAL STATEMENT OF THE TRADE OF THE UNITED KINGDOM, 1898, 14–45.

Articles	Value in £	Per cent of total imports
Breadstuffs	62,929,264	13.3
Cotton	34,125,554	7.3
Wool and hair	25,162,129	5.4
Wood and timber	23,483,546	5.0
Dairy products	20,932,025	4.5
Sugar	18,300,645	4.0
Silk and manufactures of silk	18,274,409	3.9
Live animals	11,622,175	2.5
Tea	10,335,643	2.2
Bacon	10,321,674	2.1
Fruit	7,842,577	1.7
Leather	7,788,259	1.6
Beef	7,206,189	1.5
Other articles	212,054,494	45.0
Total	470,378,583	100.

IMPORTS OF THE UNITED KINGDOM BY COUNTRIES, FOR 1898

ANNUAL STATEMENT, 1898, 2, 4, AND 6

Countries	Value in £	Per cent of total imports
United States	126,062,155	26.8
France	51,396,793	10.9
Australasia	28,850,284	6.1
Germany	28,534,159	6.0
Holland	28,532,904	6.0
British India	27,470,081	5.8
Belgium	21,534,313	4.5
British North America	20,754,642	4.4
Russia	19,489,504	4.1
Spain	13,188,258	2.8
Other countries	104,565,488	22.6
Total	470,378,583	100.

EXPORTS OF THE UNITED KINGDOM BY ARTICLES, FOR 1898

ANNUAL STATEMENT, 1898, 54-97

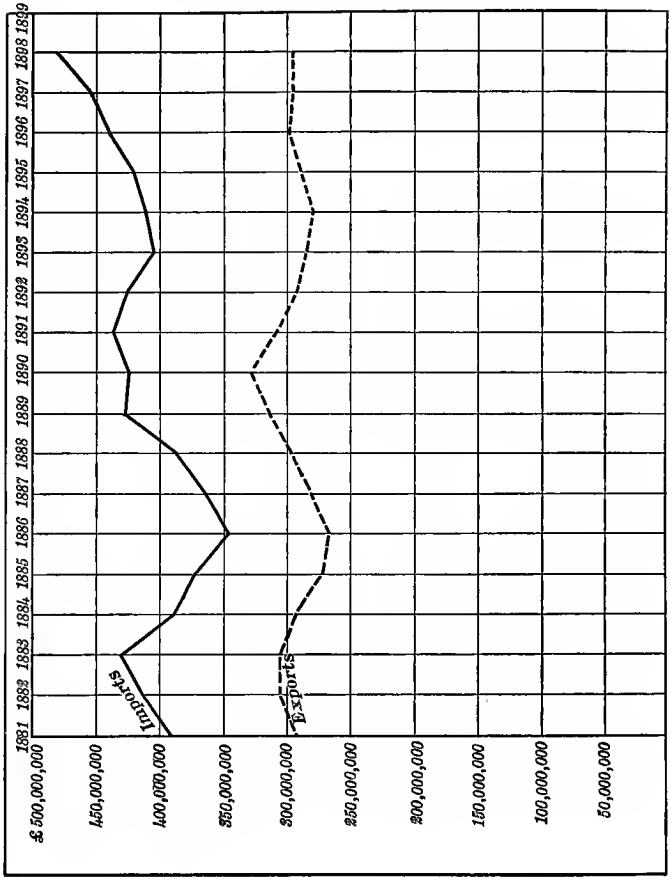
Articles	Value in £	Per cent of total exports
Cotton manufactures	64,900,777	22.1
Iron and steel	22,630,272	7.7
Coal	19,659,948	6.7
Machinery	18,389,973	6.2
Wool manufactures	16,790,538	5.7
Linen manufactures	5,278,184	1.8
Other articles	85,709,548	29.2
British produce exported	233,359,240	79.4
Foreign and colonial produce exported	60,654,748	20.6
Total	294,013,988	100.

EXPORTS OF THE UNITED KINGDOM BY COUNTRIES, FOR 1898

ANNUAL STATEMENT, 1898, 3, 5, AND 7

Countries	Value in £	Per cent of total exports
Germany	33,331,701	11.3
British India	30,362,934	10.3
United States	28,534,477	9.7
Australasia	23,430,006	8.0
France	20,513,958	7.0
Russia	14,187,208	4.7
Belgium	13,850,902	4.9
South Africa	13,147,665	4.5
Holland	13,046,026	4.4
British North America	7,541,103	2.6
Remaining countries	96,068,008	32.6
Total	294,013,988	100.

IMPORTS AND EXPORTS OF THE UNITED KINGDOM FOR SEVENTEEN YEARS



For Discussion

11. What does the large excess of imports signify about the industrial welfare of the English people?

12. Compare the two lines representing the fluctuations of English imports and exports in the chart on page 76 with the similar lines in the chart for the United States on page 67. Notice as many differences as you can, and infer as far as possible how they arise from different conditions and methods of doing business.

13. What effect will the exhaustion of the British coal mines have on British commerce?

§ 19. Germany

1. What goods have we already noticed, or do you already know of, as being sent to Germany or coming from Germany?

Germany ranks second in commercial importance among European countries. Since the Franco-Prussian War, German goods have steadily increased in the world's commerce, along with German population and military strength. An Englishman recently wrote a book entitled "Made in Germany," in which he showed how the Germans were driving the English and French out of markets in which they had long been supreme, and he noted especially the frequency with which articles bearing the German imprint were found in England itself.

Germany boasts the finest school system in the world. It certainly is unsurpassed for thoroughness of scholarship and for instruction in the arts and trades. One result of this is that German manufactures have the advantage of the highest manual

and technical skill. Another is that many persons engaged in mercantile work, both in Germany and in foreign countries, were specially trained in school for the positions they occupy.

Germany is fortunate in having extensive mines and forests. This gives her a home supply of many staple raw materials. The chief imports are cotton, wool, food stuffs, and the tropical products similar to those imported by the United States. The northern location and the long winter nights necessitate a large importation of petroleum; much of this is used by the peasants who spend their spare time in household manufacturing.

The exports of Germany are those that would be expected from these conditions, such as scientific books and apparatus, musical and optical instruments, arms and military supplies, art work of all kinds, the finest metal goods of every sort, textiles of cotton, wool, and linen, chemicals and medicines. German beer is a favorite the world over, but the quantity exported from Germany is not large.

Germany has a high protective tariff levied on a great number of articles, including agricultural products. In connection with the tariff there has grown up a system of bounties on the exportation of sugar. The beet sugar made extensively in the country is taxed according to the weight of beets used. When this sugar is exported, a drawback is given according to its weight at a rate supposed to equal the tax paid on the beets; that is, the government remits the tax, so that the producers will not be handicapped by it in the foreign markets. But improvements are con-

stantly being made in the process of manufacture and in kinds of beets grown; these make it possible to obtain a larger amount of sugar from a given weight of beets. The government makes no haste to readjust the drawback to the tax, and the drawback continues to be paid in excess of the tax that was previously collected on the beets. In this indirect way the government really pays a part of the cost of producing the exported sugar, so that it can be sold at less than cost abroad and force its way into foreign markets.

The export bounties are only one example of the way the German government encourages the sale of German products in foreign countries. Goods destined for export are carried on the government railways at specially low rates. The building of a navy and the acquisition of territory in Asia and Africa are largely for the same purpose.

Optional Work

2. Make tables similar to each of the ones given in this section. Information may be found in the Statesman's Year Book and the Commercial Year Book.

3. Put this information into the form of charts.

4. Make a chart showing the source by countries of some important article imported by Germany.

5. Make a chart showing the destination by countries of some important article exported by Germany.

6. Make a chart (coördinates) showing the relative amounts of German imports and exports for a series of years.

7. References: Chisholm, 246–58, (54–63); Gonner, 142–9; I. G., 266–97.

IMPORTS OF GERMANY BY ARTICLES, FOR YEAR 1897

COMMERCIAL YEAR BOOK, 1899, 23

Articles	Value in thousands of marks	Per cent of total imports
Grains and vegetable products	718,247	14.9
Food products, groceries, preserves	694,895	14.3
Rubber and gutta-percha	406,403	8.2
Wool	402,158	8.1
Cotton and cotton cloth	356,365	7.4
Minerals and metals	329,099	6.8
Wood	297,453	6.1
Colors and chemicals	244,075	5.1
Other imports	1,384,305	29.1
Total	4,833,000	100.

EXPORTS OF GERMANY BY ARTICLES, FOR YEAR 1897

COMMERCIAL YEAR BOOK, 1899, 23

Articles	Value in thousands of marks	Per cent of total exports
Food products, groceries, preserves	435,026	11.4
Wool	327,559	8.6
Colors and chemicals	326,730	8.6
Iron and steel	319,018	8.4
Cotton and cotton cloth	229,518	6.0
Minerals and metals	218,974	5.7
Other articles	1,951,175	51.3
Total	3,808,000	100.

IMPORTS OF GERMANY FOR HOME USE DURING 1897, BY COUNTRIES

STATESMAN'S YEAR BOOK, 1899, 600

Country	Value in thousands of marks	Per cent of total imports
North and Central America	710,739	14.6
Russia	708,319	14.6
Great Britain	661,990	13.6
Austria-Hungary	600,293	12.3
All other countries	2,183,303	44.9
Total	4,864,644	100.

EXPORTS FROM GERMANY OF HOME PRODUCTS DURING 1897, BY COUNTRIES

STATESMAN'S YEAR BOOK, 1899, 600

Country	Value in thousands of marks	Per cent of total exports
Great Britain	702,589	18.5
North and Central America	439,353	11.7
Austria-Hungary	435,131	11.4
Russia	372,064	9.8
Netherlands	263,862	7.1
Other countries	1,573,242	41.5
Total	3,786,241	100.

§ 20. France

1. What goods have we already noticed or do you already know of as being sent to France or coming from France?

France formerly ranked second in commercial importance among European countries. During the last quarter of the nineteenth century she held a nearly even place with Germany, but now seems clearly destined for the third place. This is partly because the population of France is stationary, while that of Germany is increasing. Considering the area of her country and the number of her people, France occupies a very prominent place in the world's commerce. The character of her soil and the genius of her people both seem to be adapted to produce those goods which will gratify the æsthetic sense. The wealthy people of all lands, especially those of England and the United States where the qualities characteristic of France are notably deficient, would be much inconvenienced if they could not get French goods.

The two raw products of France that enter most into her foreign commerce are wine and silk. Much of the silk is manufactured at home into the finely-wrought textiles for which the country is famous. The French excel in matters of taste, and their taste is supplemented by technical and trade schools rivaling those of Germany. This enables Paris to set the fashion for women's apparel, and makes it the seat of a vast business in millinery, dresses and dress goods, fans, gloves, ribbons, cloaks, and so on. In statistical reports these goods raise to large proportions the

figures for manufactures of silk, cotton, wool, and leather.

In the list of French imports, wool is the largest single item. Raw cotton, of course, makes another large item. Deficiency in mineral resources necessitates the importation of coal and metal goods; England furnishes more of these than any other one country. The limited forests necessitate the importation of timber, and this comes chiefly from Germany. France is a rich agricultural country and raises grain extensively; but the people live so largely on bread that the home-grown crop is sufficient for them only in exceptional years. The meat supply is chiefly raised at home, though importations are increasing.

France, like Germany, has a complicated protective tariff, and gives a bounty on the exportation of beet sugar. There are peculiar internal customs duties called *octroi*. These are imposed by the cities for purely revenue purposes, and are laid chiefly on fuel, provisions, and wine, considerably increasing the cost of living in cities. The octroi exist in all of the Latin countries.

One peculiar feature of French commerce is its concentration in the city of Paris. Any line of goods made in France can be bought in Paris, and foreign purchasers rarely go to the smaller cities. In this connection it is interesting to note that the silk industry is carried on mainly in the valley of the Rhone River with the city of Lyons as its center.

French foreign trade shows an excess of imports

like that of England, though not so great. As with England, French investments in other countries are one cause of this excess, but there is another much more important. Just as France, by producing elegancies and luxuries, ministers to the wealthy people of the world, and therefore especially to the people of the wealthiest countries like the United States and England, so also does she minister to them by providing within her own borders the most attractive places for residence or travel. More foreigners live at their leisure in France than in any other country, and their home countries pay for their entertainment by sending goods to France for which no other return is received.

Optional Work

2. Make tables similar to the ones given in this section. Information may be found in the Statesman's Year Book and the Commercial Year Book.

3. Put this information in the form of charts.

4. Make a chart showing the source by countries of some important article imported by France.

5. Make a chart showing the destination by countries of some important article exported by France.

6. Make a chart (coördinates) showing the relative amounts of French imports and exports for a series of years.

For Discussion

7. References: Chisholm, 233–9, (45–9); Gonner, 131–8; I. G., 233–55.

8. France imports large quantities of wine and raw silk, although she is an extensive producer of both and exports them. Explain.

IMPORTS OF FRANCE FOR CONSUMPTION DURING 1897, BY ARTICLES

STATESMAN'S YEAR BOOK, 1899, 535; COMMERCIAL YEAR BOOK, 1899, 16

Articles	Value in millions of francs	Per cent of total imports
Raw wool	343.7	6.7
Wine	280.3	5.5
Raw silk	266.4	5.2
Cereals	247.4	4.8
Raw cotton	205.7	4.0
Coal and coke	189.5	3.7
Timber and wood	154.6	3.0
Other articles	2268.4	44.2
Imports for consumption	3956.0	77.1
Other imports	1181.5	22.9
Total	5137.5	100.

EXPORTS OF FRENCH PRODUCE DURING 1897, BY ARTICLES

STATESMAN'S YEAR BOOK, 1899, 535; COMMERCIAL YEAR BOOK, 1899, 16

Articles	Value in millions of francs	Per cent of total exports
Silk textiles	270.9	5.6
Woolen textiles	265.9	5.5
Wine	232.5	4.8
Raw wool and yarn	172.2	3.6
Small ware	160.3	3.3
Cotton textiles	119.3	2.5
Raw silk and yarn	117.7	2.4
Leather	102.8	2.1
Other goods	2156.4	44.9
French produce exported	3598.0	74.7
Foreign produce exported	1205.1	25.3
Total	4803.1	100.

IMPORTS OF FRANCE FOR CONSUMPTION DURING 1897, BY COUNTRIES

STATESMAN'S YEAR BOOK, 1899, 535; COMMERCIAL YEAR BOOK, 1899, 16

Country	Value in millions of francs	Per cent of total imports
United Kingdom	485	9.5
United States	438	8.5
Germany	309	6.0
Belgium	288	5.6
Spain	247	4.8
Algeria	238	4.6
Russia	236	4.6
Argentine Republic	211	4.1
Italy	132	2.6
British India	122	2.4
Other countries	1250	24.4
Imports for consumption	3956	77.1
Other imports	1181.5	22.9
Total	5137.5	100.

EXPORTS OF FRENCH PRODUCE DURING 1897, BY COUNTRIES

STATESMAN'S YEAR BOOK, 1899, 535; COMMERCIAL YEAR BOOK, 1899, 16

Country	Value in millions of francs	Per cent of total exports
United Kingdom	1132	23.6
Belgium	513	10.7
Germany	380	7.9
United States	242	5.0
Algeria	216	4.5
Switzerland	191	4.0
Italy	151	3.1
Other countries	773	15.9
French produce exported	3598	74.7
Foreign produce exported	1205.1	25.3
Total	4803.1	100.

§ 21. Other Countries

1. To what other countries have you known of goods being sent, or from what other countries have you known of goods being brought? What other countries have appeared most often in the tables you have made?

As regards volume of foreign commerce, the other countries of the world fall far behind the United States and the three European countries now studied. For the purpose of general information it would be a waste of time to study all of them in detail. But it is well to know that they exist, and to have some impression of their commercial importance. It is also well to know where to find any desired information about them; for this purpose the student should make a careful study of some one country, using all the helps and materials available.

We have already noted repeatedly how trade grows out of differences. Countries in the temperate zone will trade with each other only when, because of differences in the natural resources or in the genius of the people, they differ in their products. But between the temperate zones and the tropics there is always a profound difference in the natural resources, and the difference in climate causes also a profound difference in the genius of the people. Hence the tropics produce an entirely different sort of goods from the temperate zones, and will always have an important trade with them. We who live in the temperate zone will never cease to be dependent for much of our comfort on our trade with the

tropics, and therefore to have a commercial interest in them.

The following partial list of the other countries is submitted to select from for further study: —

(*a*) Other European: Italy, Spain, Belgium, Netherlands, Austria-Hungary, Denmark, Sweden and Norway, Russia, Switzerland, Portugal, Turkey in Europe.

(*b*) Asia: China, Japan, British India, Dutch East Indies, Siberia, Turkey in Asia, Hong Kong.

(*c*) Africa: Egypt, British possessions.

(*d*) North America: Dominion of Canada, Mexico, Central American states ([5]).

(*e*) West Indies: Cuba, Porto Rico, British West Indies, Haiti, Santo Domingo.

(*f*) South America: Brazil, Argentina, Venezuela, Colombia, Chile, Guianas ([3]).

(*g*) Oceanica: Philippine Islands, Hawaii, British Australasia.

Optional Work

2. For any one of the countries named above —

(*a*) Find the total annual imports and the value of one or two of the largest items. What proportion do the imports bear to those of the United States?

(*b*) Same for exports.

(*c*) Make a table or chart showing the amount and per cent of the import and export trade possessed by the United States, the United Kingdom, and any other country that has a large share.

(*d*) Make a chart showing the relative amounts of imports and exports for a series of years.

3. Write a paper on the commerce of a country with special reference to its connection with the United States.

4. Prepare a bibliography of the commerce of a country. See books, periodicals, Consular Reports, the volumes on commerce and on the tariffs of foreign countries issued by the State Department, and all the matter issued by the Bureau of Statistics.

For Discussion

5. With which of these countries is the trade of the United States likely to increase? To decrease?

§ 22. The Ocean Carrying Trade

1. Is it an advantage to a country to have the foreign trade carried in ships owned at home? Why?

2. What were the Navigation Laws against which the English colonies in America revolted?

This study of international commerce would not be complete without giving some attention to the merchant marine by which most of it is carried. Ninety-five per cent of the foreign commerce of the United States is carried on the sea.

Though ships may travel on all the seas, it is the universal custom to require that every vessel of importance be registered in some country, usually the country in which it is owned; it is then said to belong to that country and may bear that country's flag. At sea the vessel carries papers stating the facts regarding its registry, ownership, inspection to secure its safety, the port from which it last sailed,

the port to which it is sailing, and the cargo on board. This custom of carrying papers was introduced first to aid in suppressing piracy, but is now maintained for the information it gives regarding commerce.

Until recently the resources of a country for naval warfare depended much on the number of its ships and men engaged in the carrying trade. It was easy to convert a merchant vessel into a war vessel, and the sailors on board a merchantman would be much more suitable than landsmen for service on a man-of-war. Most countries have, therefore, tried to strengthen their naval power by fostering a merchant marine. One way of doing this is to require that the country's coasting trade, *i.e.* the carrying of goods from one part of the country to another, be restricted to the vessels of that country; trade between a mother country and its colonies has usually been restricted in the same way. Such were the purpose and nature of the Navigation Laws that helped to bring on the American Revolution. Similar laws are still retained by the chief European countries except England. The United States has never permitted foreign vessels to engage in her coasting trade, and the same rule is now applied to the trade between the United States and the nearest of her outlying possessions, — Alaska, Hawaii, Porto Rico, but not to the Philippines. Many regulations tending to reserve all the foreign trade of a country for the ships of that country have been devised and put into operation.

Navigation laws have now been greatly relaxed. When England adopted free trade, she extended the

principle to the carrying trade as well; even the coasting trade of the British Isles is open to the ships of all nations on the same terms as to British ships. Between all nations a system of reciprocity treaties has grown up by which each country admits to a share in its foreign trade the ships and citizens of such other countries as give like privileges in return.

Now that steam has taken the place of sails, a large merchant marine is of much less importance from a military point of view than formerly. The difference between life at sea and life on the land has much diminished, so that landsmen can be utilized for naval warfare with less inconvenience. Besides, ships of war to-day are specially constructed for this purpose; merchant vessels are of use only as transports, though when specially constructed and possessing high speed they can be transformed into cruisers. England encourages the building of such vessels by offering bounties or subsidies on an agreement that the vessels may be taken by the government in case of war.

Before the Civil War the United States had a large merchant marine. In 1859 American vessels carried two-thirds in value of our imports and exports that traveled by sea. Now the proportion has shrunk to about one-tenth. The following table gives the number and tonnage of American and of foreign vessels that entered and cleared at New York, at Boston, and at all of the ports of the United States for the year ending June 30, 1898. The data are from C. & N., 1898, 764–71.

ENTERED

		UNITED STATES		FOREIGN	
		Vessels	Tons	Vessels	Tons
New York	Sailing	449	231,686	787	531,295
	Steam	282	720,553	2,817	6,287,878
Boston	Sailing	150	66,130	950	158,251
	Steam	62	72,272	830	1,613,837
All ports	Sailing	5,135	1,501,865	6,857	3,109,229
	Steam	6,903	3,738,181	13,525	17,230,124

CLEARED

New York	Sailing	300	179,615	898	598,606
	Steam	267	670,649	2,742	6,127,760
Boston	Sailing	196	71,335	947	127,760
	Steam	48	49,222	726	1,414,034
All ports	Sailing	5,090	1,458,843	6,965	3,281,742
	Steam	6,599	3,652,604	13,599	17,355,043

Several causes have contributed to this decline of American shipping. The chief is the substitution of iron for wooden ships. In the production of the latter the United States has a great advantage, with the timber of Maine near the coast; but British iron and coal are nearer the sea than ours, and therefore we have found it profitable to let the English and Scotch build the iron ships to carry our goods. Now,

however, the recent tremendous development of the iron industry in the United States has started a revival of ship-building.

For Discussion

3. What would be the result on the trade of two countries if each were to require that all its foreign trade be carried on by its own citizens and transported in its own ships? What if all countries were to make this requirement?

Optional Work

4. Give briefly the terms of some reciprocity treaty on commerce or navigation. See the volume entitled, "Treaties and Conventions of the United States"; also the Annual Reports of the Commissioner of Navigation for 1899, 234–62.

5. Write a short paper on the merchant marine of some foreign country. See Reports of Commissioner of Navigation for 1899 and other years.

6. Write a paper on the decline of American shipping. S. A., 405–25; C. & N., 685–803. S. A., 422, gives the most concise information, stating the amount of our imports and exports carried in American and foreign ships respectively for each year, from 1859 to 1898.

7. See *merchant marine* and *shipping* in Poole's Index and the encyclopædias.

8. Make a table like the one on the preceding page for some other year than 1898.

9. Express the information, or a part of it, in a chart of some kind.

CHAPTER V.

THE DOMESTIC COMMERCE OF THE UNITED STATES

§ 23. The People

1. What is the population of the United States? In what section of the country do the larger part of these people live?

2. How does the wealth of the people in the densely populated portions compare with that of the people in the sparsely settled portions?

3. How do these two factors, wealth and the density of population, affect the ability of the people to carry on commerce? How do they affect the disposition of people to buy things made at a distance instead of using home-made goods?

4. In what section of the country do we find the people whose wants are first considered in arranging our commercial system?

A commercial system, with its transportation lines and great commercial centers, grows up in such form as to give the greatest good to the greatest number — to facilitate the largest volume of buying and selling.

About half the area of the United States contains only a scattered population; half of the other half is thinly settled; only one-fourth is thickly settled.

But there are differences in people, and density of population is not the only thing to consider. Those people are of importance in commerce who have something of money-value to offer in exchange for what they want. In general, the more dense populations have a greater amount of wealth for each inhabitant and produce a larger amount of goods each year which they wish to exchange; they therefore have even more than a proportional amount of commerce. It will be found that approximately two-thirds of our people live on one-fourth of the land of the United States, and that these people possess three-fourths of the wealth of the country. So it is probable that this one-fourth of our territory possesses much more than three-fourths of our commerce.

Optional Work

5. Find definite answers to the questions in exercise 1. See Abstract of the Eleventh Census, 10.

6. Find a definite answer for exercise 2. See Abstract of Census, 196.

7. On a small map of the United States color the states that have a large population. Those that have a large valuation of property.

8. The above results could be made more significant by taking the area of the states into account. See S. A., 1 and 2. Separate the states into classes according to the number of inhabitants per square mile, as ten, fifty, one hundred. Also according to valuation of property per square mile. Also according to valuation per inhabitant.

9. Get a county map of the United States to go by and a small map to mark. Consult Abstract of Census, 13–33. Then grade roughly the various parts of each state according to density.

§ 24. The Merchandise

1. What classification of merchandise did we use when studying Chapter II?

2. Is there any reason for adopting a different classification in studying the domestic commerce of the United States?

The problem in this section is to select a few important lines of goods, get some idea of the volume of their commerce and of the directions in which they move.

The Census Bureau of the United States divides the products of the country into five classes, as follows: —

(*a*) Agriculture. This includes not only the usual farm products, such as wheat, corn, cotton, and the farm animals, but also the cattle and sheep that are raised on ranges.

(*b*) Forest products. These consist of logs and timber, besides a few articles of less importance.

(*c*) Fisheries. In this term is included the catching of oysters.

(*d*) Mineral industries. The principal articles mined are iron ore, gold and silver, copper, coal, petroleum, and stone.

(*e*) Manufactures. This industry can be subdivided almost without end. The Abstract of the Eleventh Census names 359 classes of manufactures.

The most convenient collection of statistics about the goods produced in the United States is found in the Census Reports. This is given in condensed form in the Abstract; references are here given

only to the Abstract of the Eleventh Census. The quarto volumes alone give detailed information about manufactures and forest products. Some information is published annually in the Statistical Abstract. Publications relating to special industries should be used as far as they are available. Business men should be freely consulted about the industries in which they are engaged.

In discussing the following topics, give first the total value of the goods, if possible; then make this sum intelligible by comparing it with some value that is more familiar. Next show in what region the goods are produced in such quantity as to be in excess of the local demand. The surplus product will flow out of this region. Next indicate to what place or region the goods will probably be carried. This will require you to consider whether the goods are wanted by nearly all people, or only by certain classes. Among articles of the former kind are sugar, flour, cotton cloth, and shoes. Goods of the latter sort include machinery, coal, and articles of luxury. With a map of the United States before you showing density of population, decide where the people are who will be ready to give the most for the merchandise. This will give the key to a comprehension of the commerce in that line. If there is a large foreign trade, consider that also; surplus exported goes mostly to the seaboard; imported goods come in at the seaboard. It would be interesting to color a map of the United States so as to indicate the region where the goods are produced and the direction in which the surplus flows.

Optional Work

3. Agriculture: Corn, wheat, cotton; for these S. A., 300–2, gives export, together with home production. Cotton, tobacco, hay, potatoes, wool; for these production by states is given in S. A., 328–36. The Abstract of the Eleventh Census gives in pages 103–36 the value or quantity of the following by states: horses, mules and asses, cattle (3),[1] swine, sheep, wool, dairy products (3), poultry and eggs, barley, buckwheat, corn, oats, rye, wheat, cotton, flax, hemp, sugar and molasses (3), hay, rice, tobacco, potatoes (2), and orchard products (6).

4. Forest products: see quarto volume of the Eleventh Census.

5. Fisheries: Abstract of Census, 162–6 (7).

6. Mineral: Abstract of Census, 141–160. Make a list of the states that rank high in cost of materials used; in value of products.

7. Study the large items of imports with regard to probable distribution in the United States.

§ 25. The Carrying Trade

1. Why did the Dutch make their first settlement in America at the mouth of the Hudson River? Why do three million people now live there?

In § 5 it was noted that commerce is intimately connected with transportation. It is impossible to understand the domestic commerce of the United States without a knowledge of the transportation system.

The first settlers in a new country usually come with limited capital. They cannot therefore depend much on artificial means of transportation, but must

[1] Indicates the number of varieties for which figures are given.

use those which nature has afforded them. Then it is only recently that man has learned how to construct roadways wherever he pleases. The original lines of travel have therefore always been nature's highways. Nature's best highway is the water. The sea, the lakes, and the rivers have been from primitive times until within the last half-century more used than the land for distant travel and the transportation of merchandise.

In the United States the north is connected with the south by the Atlantic Ocean on the east, the Pacific Ocean on the west, and the Mississippi River through the middle. Ships can travel from one ocean to the other and give water transportation between the east coast and the west coast by going around South America, and a canal is now being constructed at Panama to shorten this journey. But the most important waterway for the domestic commerce of the United States is that of the Great Lakes. These connect with the sea by means of the St. Lawrence River, also by the Erie Canal and the Hudson River. This system penetrates nearly to the middle of the country on the north side and enables several of the richest states to communicate by water with each other and with the rest of the world.

The railroads have supplemented the waterways of the United States by connecting them with the interior and paralleling them in some places. But the waterways remain the skeleton of our transportation system. They are the cheapest means of transportation, especially for heavy goods. Iron ore is carried from Ashland to Buffalo for about sixty cents

a ton. Coal is carried from Buffalo to Duluth, a distance of one thousand miles, for about fifty cents a ton — a rate of one-half mill per ton per mile. Transportation by rail is several times as expensive as this, the average charge per ton per mile in the United States being about six mills.

The most prominent railways in the country are those which connect Chicago with the Atlantic seaboard and are known as the Trunk Lines. These terminate at the great Atlantic seaports, — Baltimore, Philadelphia, New York, and Boston. Next in importance come what are called the Granger Railroads; these connect with the Trunk Lines at Chicago or with boats on the Lakes, and thence ramify through the farming region of the North Central states. The longest direct lines of railroad in the United States are the Transcontinental Lines, which run from the Mississippi or Missouri rivers to the Pacific coast. The railways in the Southern States have been laid down so as to connect the interior with the seaports or the waterways leading to them, — the Atlantic Ocean, the Gulf of Mexico, the Mississippi River, and the Ohio River.

Optional Work

2. On a small map of the United States mark the main lines of —

(*a*) The Erie Canal.
(*b*) The Welland Canal.
(*c*) The New York Central Railroad.
(*d*) The Michigan Central Railroad.
(*e*) The Baltimore and Ohio Railroad.

(*f*) One of the Transcontinental Lines.
(*g*) One of the Granger Railroads.
(*h*) One of the Southern Railroads.

§ 26. Commercial Centers

1. Why is so much commerce carried on at Boston, New York, Philadelphia, Baltimore, New Orleans, San Francisco, Minneapolis, St. Paul, St. Louis, Chicago, and Buffalo? Or, in other words, why do these great cities exist?

Commerce is only one of the factors that go to the building of a city; but it is usually the principal factor, especially in the later growth of a very large city. A great variety of causes may share in the making of a small city; manufacturing may make a large city, but a city of the largest size can exist only by becoming the commercial center of a great territory.

Commerce centers at the ends of transportation lines; the cities named above are good examples of this principle. Over a continuous line of transportation goods are carried in a continuous trip without changing owners. There is little commerce in north central Indiana for the same reason that there is no commerce in the middle of the Atlantic Ocean; goods are only in transit and the carriers are responsible for them; there is transportation without commerce. But when goods must be transferred from one line of transportation to another, then, if at all, change of ownership will take place. The goods coming by one line must be unloaded, housed, broken in bulk, and distributed to other lines of transporta-

tion, or goods coming in by a variety of lines must be accumulated, housed, and re-shipped in large lots. The owner must give attention to this work on the spot, either in person or by his representatives; so there, if anywhere, he will make his sales, or at least direct their making.

Let us look at Chicago, for example. There is the head of the inland waterway made by the Great Lakes, and also the western terminus of the Trunk Lines of railroad. The Granger Railroads find it necessary to get into connection with the Lakes and the Trunk Lines, and so make Chicago their eastern terminus. At this place of trans-shipment traders gather to buy and sell, and Chicago becomes a great commercial center.

The growth of a commercial center is cumulative, like the momentum of a ball rolling down hill. Commerce stimulates transportation, and good means of transportation facilitate commerce. Commerce attracts traders, and the coming together of more traders makes more commerce possible. Manufactures cluster about a commercial center and in turn increase its commerce. Chicago would doubtless remain a great city if the southern half of Lake Michigan should dry up.

Separate trades exhibit the same tendency. Each line of goods has some one city which is its commercial center, and where the price for the entire country is fixed. New York is a great center for every kind of commerce and is becoming still greater; but Boston may yet be regarded as the center of the trade in leather goods, Philadelphia in coal and iron, Balti-

more in oysters and tobacco, New Orleans in cotton, Minneapolis in flour, and Chicago in farm produce.

Optional Work

2. What proportion of the wealth and population of the United States is in the states bordering on the waterways between the Great Lakes and the seaboard? Abstract of Census, 10, 196.

3. Make a list of the cities in the United States with a population of over two hundred thousand. Mark those that are on navigable waters. Abstract of Census, 34–7.

4. Make a table of the seaports of the United States showing the value of the goods brought in at each. Include all whose imports for one year were over $8,000,000. C. & N., 234.

5. Same for exports.

6. Why does New York have more of our foreign trade than all the other seaports combined?

7. Give reasons for the commercial importance of some other city.

8. What is the commercial center of some line of goods? Give the reasons for it.

§ 27. The Volume of Domestic Commerce

1. What sum does the foreign trade of the United States amount to?

2. How are these statistics about foreign commerce gathered? Would it be possible to secure similar information about domestic commerce? If so, how?

The United States occupies a strip across the Western continent extending from the sub-tropical regions to the region of long winters and short summers. This territory includes within itself a greater variety of products than any other one country in

the world. It is bound together by splendid systems of communication and transportation; railroads, telephones, and telegraphs penetrate every part of it; two cents will carry a letter from one end to the other, and one cent will carry an ounce of printed advertising matter; the sea, the lakes, the rivers, and the canals connect one locality with another by waterways. High tariffs, both at home and abroad, tend to shut up this territory to itself and check foreign trade, but within there is no tariff to check internal trade; here is the greatest free-trade area in the world, with a volume of business surpassing the total trade of the United Kingdom. The domestic trade exceeds the foreign trade many times over. Whatever may be the merits of the tariff question, it is of much less importance than is usually supposed.

The amount of the foreign trade can be learned with great exactness, as all goods must pass through the custom-houses where their kinds, quantities, and values go on record. Not so the domestic trade. The railroads are required to keep an account of the quantity of freight they carry, but not of the value, and the kinds of goods are given only roughly. On the watercourses it is still more difficult to know what the trade is; figures are published stating the number of tons of freight carried, but many of them are only estimated, and much freight never gets on record at all. If the long-distance traffic is thus imperfectly known, what shall be said of the local trade? Farm wagons, drays, local express companies, and delivery wagons do the transporting

when the customer does not carry away his purchases by hand; the dealers alone can give even an estimate of this business, and that they rarely do; still more rarely is the sum of the transactions of all dealers within a locality ever known with any degree of accuracy. Then there is a vast amount of trading in which merchants have no part; Peter and Andrew trade knives, two farmers in the backwoods trade horses, a gardener sells some potatoes to a neighbor — the volume of such transactions can of course never be known. Our compilation of statistics for domestic commerce will therefore be attended with much uncertainty.

Optional Work

3. What do the bank clearings of the United States amount to for a year? If these represent fifty per cent of the commerce of the country, what would the total volume be? S. A., 73.

4. The census gives the value of the goods produced in each of the great industries. Add to this the value of the goods imported, and thus get the total value of the goods bought and sold in the country. Any one piece of goods is sold several times before it is consumed; assume some number for an average and multiply the total value of goods by it. The result is the volume of domestic commerce, though, of course, only a rough approximation, omitting trade in land, securities, and other things that are not produced or consumed. Abstract of Census, 99, 141, 162, 169.

5. This problem may be approached from other directions, such as the statistics compiled for special trades or the estimates of boards of trade or commercial organizations for given cities.

CHAPTER VI.

THE ORGANIZATION OF TRADE

§ 28. Classes of Merchants

1. Name as many ways as you can in which goods are bought and sold.

2. Trace the course of goods from the producer to the consumer.

The simplest organization of retail trade is that of the peddler who carries his wares with him. He calls from house to house (1) in rural districts or frequents busy streets in cities (2). Another primitive form appears in the old-fashioned fairs (3) and markets (4). Next higher in the scale comes the general store (5), still existing extensively, where the dealer tries to keep in one room, often a small one, about everything that the people in his vicinity ever want to buy.

When business becomes more extensive, and customers want a greater variety of goods, the general store gives way to the single-line store (6). One store sells groceries, another men's clothing, another boots and shoes, another books, and so on; each dealer tries to supply some clearly defined group of wants. But the groups are subject to an infinite variety of arrangement. Thus in New England cities the grocer nearly always sells meat (7),

his aim being to supply everything in the line of provisions; but in the Central and Western states, meats are usually sold separately, the small grocery frequently having a small meat market beside it though under separate ownership.

But the wants of customers, especially of women, will not stay in clearly defined groups; when a lady is on a shopping trip among single-line stores she must frequently go from one store to another, often over muddy or crowded streets, and carry with her the small goods which the dealers will not deliver at her home ([8]). Hence arises the department store, which enables her to buy everything under one roof ([9]) and have all delivered. The department store, like all business on a large scale, can also frequently employ economies that reduce cost and make reduction in prices possible. It has therefore come to stay, though it brings with it some serious evils.

The organization of the wholesale trade depends on the form taken by the retail trade. Each wholesaler tries to supply a distinct group of retailers, just as the single line retailer tries to supply a distinct group of consumers. There are wholesalers in boots and shoes to supply the retailers in boots and shoes, wholesale grocers to supply the retail grocers, and so on. The cloth handled by tailors comes from wholesalers who sell only to tailors; the cloth in the dry-goods store comes from wholesalers of all kinds of dry-goods. So in the wholesale trade as in the retail, there are merchants who handle only a single line of goods ([10]), and there are those whose stock includes a great variety of articles ([11]). Goods re-

quiring special treatment in storing or handling are likely to be supplied by special wholesalers, even though retailed along with other goods. Thus the grocer buys his fresh fruit from a wholesale fruit dealer instead of from a wholesale grocer. The retailer of dry-goods buys of many single-line wholesalers because of the immense variety of goods his trade requires.

As a regular thing, goods undergo three sales,— from producer to wholesaler, wholesaler to retailer, retailer to consumer. But there are many exceptions. When the goods are turned out by numerous small producers, they must be assembled in large quantities before they get into the wholesale market proper ([12]). Butter, for example, is first sold by many thousands of small dairies and creameries, each of which contributes a small amount. Between these and the wholesalers of butter in the large cities there is a class of middlemen who buy the produce in small quantities and sell it in large quantities. Imported goods likewise usually go through the hands of an extra class of middlemen who see to the transfer from one country to the other ([13]).

On the other hand, there are numerous short cuts. A few lines of trade have neither wholesale nor retail trade, properly speaking, the manufacturer keeping possession of his goods till they reach the persons who buy for their own use. In this class are usually found pianos, sewing-machines, typewriters, machinery, and subscription books ([14]). Goods made to order do not pass through the hands of merchants ([15]);

they include the finer grades of clothing, fixtures for stores and factories, and heavy machinery. A considerable part of the goods put on the market by small producers in shape for immediate consumption by the public at large goes directly from producers to consumers ([16]). Garden vegetables are the great example of this class. Another large part of such produce passes through the retail stage only. Outside of the large cities, very little garden produce is handled by wholesale dealers. Goods of another class escape the wholesale stage entirely because they can be delivered to the retailer in good condition only from a storage plant of peculiar construction. Beer, dressed beef, and kerosene are examples ([17]). The manufacturing company does its own wholesaling, keeping an agent with the proper facilities in every city where it has much business. Materials which are used only by large factories are sold at wholesale, but not at retail ([18]).

One large class of middlemen is that known as commission merchants ([19]). They receive goods on consignment, but do not buy them; they sell these goods for the consignor and deduct a percentage of the proceeds to pay them for their work. The risk that the goods will spoil or fall in value is carried by the producer and not by the dealer. Small producers frequently choose this way of getting their perishable wares into the market; they are unwilling to let a dealer have the profit which will enable him to carry the risk. This business is liable to great abuses; intelligent producers avoid consigning their goods to commission merchants.

The wholesale trade in bulky goods like coal, lumber, grain, and cotton is usually carried on in offices where no goods are kept ([20]). Such goods are always graded, sometimes under government inspection, and are bought and sold by grades; a sample may be exhibited, but more frequently that is dispensed with. The offices are maintained where they will be most accessible to purchasers; often those in the same line will be clustered in one street. The goods are kept in distant warehouses. The jobber in pine lumber leaves his goods on the premises of the saw-mill until they are sold and shipped to his customers. Goods which exhibit endless varieties of quality, like wool and tobacco, need to be inspected for each sale, either by sample or in bulk; large jobbers probably sell by sample in down-town offices, small ones at the warehouses where the goods are stored ([21]). Coming now to goods of great value in small compass, such as cloth, leather goods, and jewelry, we find that a wholesale establishment consists of a warehouse and office combined ([22]).

Modern facilities for quick communication and transportation have made it less necessary for merchants of all kinds to keep large stocks. Wholesalers habitually fill large orders by having the goods shipped directly from the manufacturers ([23]). With some lines of goods the retailer, even in an inland town, can get an order filled in two or three days ([24]). The same factor has doubtless diminished the number of middlemen; the Minnesota miller now sells his flour directly to dealers in Europe, thus cutting out the merchants who buy for export.

Optional Work

3. Make a list of illustrations, giving names of dealers, if possible, to accompany the foregoing text. Let there be at least one illustration for each class marked by a number in parenthesis. Where illustrations are already given, find others.

4. By the aid of a directory make a list of the single-line stores in some city or in some one business in a city.

5. Make similar lists for department stores, wholesale merchants, commission merchants.

6. Describe the conditions in which you have known a general store to exist.

7. Write a paper on the organization of trade in some line of goods. Are the various dealers large or small, numerous or few?

8. Make a list of the varieties of wholesalers from whom the retailer of dry-goods buys. Same for groceries.

9. Is there any difference between a *jobber* and a *wholesaler?* Define *commission merchant, broker, factor, agent.*

For Discussion

10. Is retail trade the same as selling to consumers?

11. Make a careful analysis of the reasons for the existence of each form of trade indicated in this section. For example, why are typewriters sold by agents and not carried in stock by merchants as stoves are?

§ 29. Associations of Merchants

1. Name the organizations of students in this school. What are their purposes?

2. Name some of the organizations of business men. What are their purposes?

Persons engaged in the same line of business are competitors; each is trying to outdo the others. But they also have many interests in common. These common interests, aided by the universal desire for companionship, have led those engaged in the same business to form themselves into societies ever since modern business began, eight hundred years ago.

The main purpose of the usual trade association is to exact uniform treatment of those from whom its members buy, and to agree on uniform treatment for those to whom its members sell. In both these cases, uniform treatment means chiefly uniform prices, though other things are included, such as length of credit given, discounts and rebates, mode of shipping or delivering, the classification of goods according to quality, and the line of dealers or persons to whom sales may be made. In the long run two dealers similarly situated must charge the same prices for similar goods delivered in a similar way. If each made his own prices without consulting the other, there would be slight differences; one might have a higher price on certain goods, and the other a higher price on other goods. Such differences would give rise to endless disputes and suspicions of unfair treatment between the dealers and their customers, and there would be a constant readjusting of prices. An agreement between the dealers removes all of this friction.

The wholesalers of a trade center like Chicago always have some organization through which they can bring their united influence to bear in a matter affecting all alike, such as discrimination against the

city by the railroads. For the regulation of prices each line of trade may have its own association.

Retailers, when they exist in sufficient numbers, are always organized. Some, like the grocers, bring into one organization all of their number in one city; others, like lumbermen, organize by states or other large sections of the country. The retailers keep a sharp watch over the wholesalers to see that the latter do not sell at retail; the wholesaler who persisted in selling at retail would be boycotted by the retailers, and his trade would be ruined.

When dealers act as a unit in this way, they sometimes think they can make prices what they please, and impose lower prices on those from whom they buy or higher prices on those to whom they sell than the circumstances would justify, and so make a monopoly profit. But such an attempt cannot be successful in the long run in a purely mercantile business. High profits will soon tempt others to enter and spoil the monopoly. In this respect mercantile business is different from manufacturing.

Optional Work

3. Write of some organization of merchants or manufacturers.
4. Make a list of such organizations that exist in your city. In any other city.
5. How is some line of trade organized?

§ 30. How Sales are Made

1. What articles are bought at your home of dealers who call and solicit business?
2. Why do not all dealers go to the buyers in this way?

The buyer may either go to the seller or the seller may go to the buyer. In retail trade, as a general thing, the buyer goes to the seller. The seller keeps a place of business at an accessible point, with a stock of goods displayed to attract the eye, and waits for customers to come to him. He may attract them by advertising in some form, or even send samples to them, but he does not go to them to take orders or solicit their trade. To some extent this mode of making sales exists in the wholesale market. A jobber may visit a factory to inspect the goods and give orders for large lots. A retailer may go in person at certain seasons of the year to the wholesalers or the manufacturers and select his entire stock. This happens most often in the clothing business and the lines allied to it.

The opposite method, the seller going to the buyer, prevails in the entire course of goods from the raw material just taken from the earth to the finished goods in the hands of retailers ready for sale to the general public. Small producers, like farmers and gardeners, take their produce with them and sell to the dealers in the nearest towns or villages. Large producers, like manufacturing corporations and the entire class of wholesalers, usually go to the buyers by means of traveling agents. Whenever practicable the traveler carries samples with him; he sells articles that are graded by the grade; he exhibits bulky machinery by means of pictures or models.

Convenience is the controlling factor in deciding between these two forms. In the retail business the dealers are few and accessible; the buyers are many

and inaccessible; therefore the buyers go to the sellers. Farm produce exhibits the opposite qualities, therefore sellers must go to the buyers. In the wholesale business, sellers are often fewer than the buyers, but the buyers are always accessible. To go to the seller, the village grocer would have to travel the distance between himself and the wholesaler and give his single order. But the wholesaler's traveling man could visit a score of grocers in traveling that distance. Besides, the village grocer may not be accustomed to traveling so that he can do it comfortably, and he does not always have reduced rates on the railroads.

Then the side of trade in which competition is keenest will tend to encroach on the other in the thoughts and efforts of merchants. If competition is sharper between sellers than between buyers, sellers will go to the buyers, and more of the work of commerce will be connected with selling than with buying, although every sale has its corresponding purchase, and in aggregate value the buying equals the selling. On the other hand, if the buyers are competing keenly they will seek out the sellers. All of this tends to keep up a steady flow of commodities.

By seeking out possible customers, the seller can often create a demand where none existed before. By showing his goods, especially if they are of a kind never before on the market, and sometimes by sheer persuasive power, he leads people to buy who never would have come to him of their own motion.

Optional Work

3. Write fully of the way sales are made in some line of trade.

4. Does the competition of sellers ever lead to the adoption of such expensive devices for getting customers as to increase the cost of goods?

5. Why do not the purchasers of articles named under exercise 1 go to the stores and buy?

6. Why do retailers, in some lines of goods, go to the wholesalers and select their stocks in person.

7. Compare the advantages and disadvantages of selling by means of traveling salesmen with selling by means of circulars, samples, and mail orders.

CHAPTER VII.

PRICES

§ 31. Market Prices

1. In 1897 there were short crops of wheat in several of the important wheat-raising countries. What effect would you expect on the price of wheat?

2. When the season is favorable for the production of apples, what is the effect on the price of apples? On the price of apple barrels?

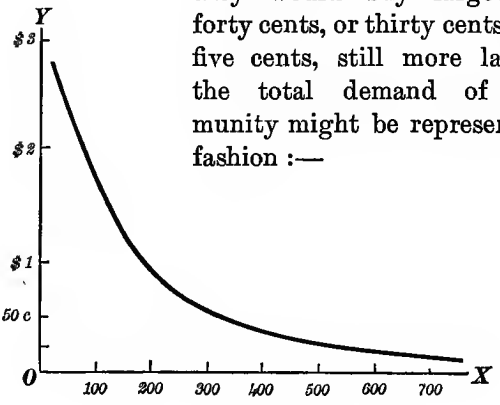
3. How did the invention of the cotton-gin and of the machinery for spinning and weaving affect the prices of cotton cloth?

4. What are the factors which determine the market price of anything?

In § 3 we noticed how people express the usefulness of goods to them in terms of money. But these possible prices are seldom the prices at which transactions actually take place. The tailor would be willing to pay a dollar a bushel for potatoes rather than go without them or raise them for himself; but he actually gets them for forty cents. At the same time the gardener would be willing to raise potatoes at tweny-five cents a bushel rather than go into some other business. Why is the market price forty cents, and not at some other point between twenty-five cents and one dollar?

It is usually said that market price depends on demand and supply. This is true, but some careful analysis is necessary to comprehend its full meaning. Let us first consider demand.

The tailor would give a dollar a bushel for potatoes rather than not buy any. But at this price he would take only two bushels, at seventy-five cents he would take three, at fifty cents four, and at forty cents five. So his demand for potatoes is not fixed, but varies inversely as the price. There might be one man in the town who would pay five dollars for a bushel rather than go without; but he also would buy more as the price lowered until he would buy five bushels at a dollar each. A few others would pay two, three, or four, as the extreme price for a small quantity; but they also would buy several times as many bushels at lower prices. The greater part of the people in the town, however, would buy few potatoes at a dollar or above; at fifty cents they would buy largely, and at forty cents, or thirty cents, or twenty-five cents, still more largely. So the total demand of the community might be represented in this fashion :—



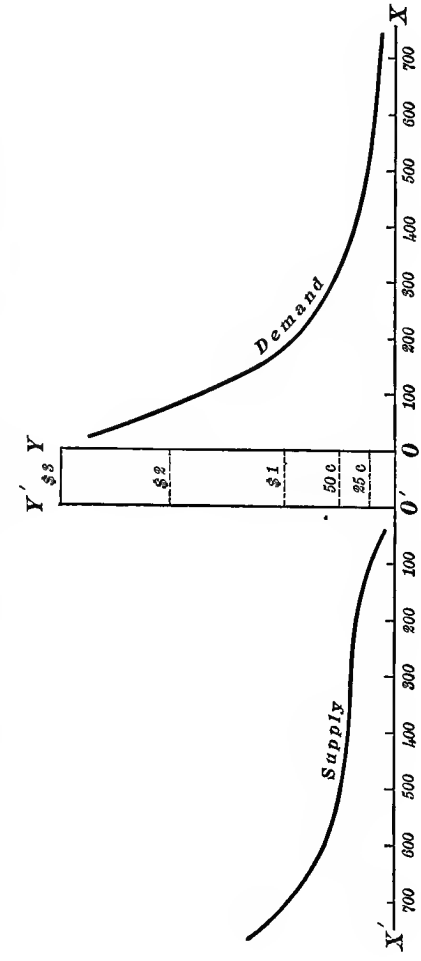
OY and OX are perpendicular to each other. Distance from O on the line OY represents price, and distance from O on the line OX represents quantity. Assume any price, as fifty cents, and find the point on the scale OY corresponding to it. From this point draw a line parallel with OX until it intersects the curve, and from this intersection draw a line to OX that will be parallel with OY and perpendicular to OX. The point of intersection on the scale OX will represent the quantity demanded at the price named. Or a quantity may be assumed and a line drawn from OX to the curve and another from the curve to OY, so as to show the price at which the quantity can be sold.

Supply is somewhat more complicated. In the first place it must be noted that a change in price has precisely the opposite effect on supply that it has on demand: a rise tends to increase supply, and a fall tends to decrease it. If the price of potatoes goes up from twenty-five cents to forty cents or seventy-five cents or one dollar, each rise brings a supply from a greater distance and will cause a larger crop to be planted the next season.

Now we may take the diagram for demand and put with it a similar one for supply, marking quantity off to the left from O' to X' (see following page). Demand and supply are, or tend to become presently, equal to each other. By laying a ruler horizontally across this diagram it is easy to determine what price will make supply and demand equal.

It is observed, however, that many articles have standard prices from which they do not vary much;

DIAGRAM ILLUSTRATING DEMAND, SUPPLY, AND PRICE



whether the community demands at this price a a great quantity or a small quantity, matters little. This standard price depends on cost of production; more exactly, it is cost of production plus a fair profit to the producer; or, as the economists say, cost of production must be considered to include a fair profit to the producer.

A few articles, on the other hand, are precisely the opposite of the ones just indicated. They can not be produced at all, and the supply remains absolutely the same, no matter what the cost. Such are old paintings, books, coins, and relics, provided they are genuine. The most important article of this class is land; whether the price be high or low or nothing at all, the quantity remains the same.

Optional Work

5. Make a statement of your own, as precise and logical as possible, of the factors which determine market price.

6. Put on the blackboard a diagram like that on page 118 showing the probable demand of members of this class for lead pencils during a year at various prices. The class will then criticise the diagram.

7. Prepare to put on the blackboard without using notes a diagram showing both demand and supply in the case of an article which can be had in any desired quantity at a given price. The following are suggested to choose from: toothpicks, keys, twine, plain cloth caps for boys, brown wrapping paper, rulers.

8. Prepare in the same way a diagram for an article the quantity of which cannot be changed, such as autograph letters of Washington or some other great man now dead, violins that are more than fifty years old,

ancient Roman coins, pictures by Copley, a block of lots that face on an important business street, books printed in the time of Queen Elizabeth.

9. Express in a demand diagram the effect of changes in price on the demand for one of the following articles: strawberries, currants, blackberries, apples, potatoes, bicycles, coffins, millinery, carnations or other cut flowers. Make the curve first based on your own judgment, then show it for criticism to some well-informed person—a dealer in the goods, if possible.

10. Make a diagram showing demand and supply out of the figures given in T., 205.

11. References: T., 193–215; B., 183–216; W., 67–88; E., 121–37; N., 215–23; M. I., 547–54; L. M., 249–59; H., 86–91; Mar., 210–43.

§ 32. Profits

1. What is understood by *profit?* Illustrate the various meanings.

The advance of the merchant's selling price over his purchase price is his gross mercantile profit. Deducting his expenses gives his net mercantile profit. Mercantile profit of either kind is often expressed as a per cent of the purchase price. The total of net mercantile profits for a year, less all general expenses, gives net profit for the year; this is sometimes expressed as a per cent on the capital invested.

These three kinds of profit will be found to vary greatly in different businesses. In retail trade mercantile profits would probably be found small in the grocery business and large in the drug business; per cent of net profit on capital would probably be small

in the shoe business and several times as large in the meat business. To discover a cause for this a further analysis must be made.

The net profit on a year's business consists of three elements: (1) interest on capital invested, (2) pay for the work of the owner, and (3) something to cover the risk of failure. The element of risk varies with the nature of the business; risk of fire may be covered by insurance and so appear among the expenses, but there are other risks which cannot be insured; the larger the risk, the greater the profit must be to induce people to enter the business. Similarly, people must be paid for their work or they will not long continue in business. The more work involved in making each sale, the larger the mercantile profit must be; the more work required of the owner for which there is no regular pay appearing among the expenses, the greater the net profits of the year must be; the higher the grade of work, the higher the pay, and for a given grade of work the pay will be much the same in all lines of business. Interest also tends to be uniform; when we take out risk, or find cases where the risk is the same, interest on money loaned is the same at a given time and place. Therefore the owner of the capital invested in a mercantile business must get the usual rate of interest or he will withdraw his capital and lend it.

The net profits on the year's business in every line of trade must be high enough in the long run to pay not only interest on the capital invested, but also risk and the owner's work. If the risk is large and

much work is required to sell ten dollars' worth of goods, net profits must be large.

The per cent of mercantile profit on each sale depends on the same factors as the per cent of net profit for a year, with one factor in addition. The dealer who can sell out his stock every few weeks need not make so high a per cent of gain on each sale as he who must carry his goods six months. Quick sales permit of small profits, and slow sales require large profits.

A curious irregularity in prices requires explanation at this point. A merchant may sell to customers at a distance at lower prices than to those in his immediate vicinity. A manufacturer of plows in Ohio may sell cheaper to dealers in South America than to dealers in his own state. This is often taken as evidence of extortion, it being assumed that the reduced prices charged to distant customers are made up by advanced prices to home customers. Such a conclusion, however, may be entirely unwarranted. In the first place, the reduced prices are usually given for occasional transactions, or for odd lots of goods not finding a ready sale ; so the apparent discrimination may in reality be no discrimination at all. There may, however, be a real discrimination, though a justifiable one. Take the case of a dealer whose prices to regular customers pay all expenses and give him a fair profit. Suppose now an opportunity comes to make sales in a distant market at slightly lower prices; the cost to him of these additional goods may be very little, because they occasion only a fuller use of a plant already established and of help already

employed. The low prices pay the extra cost and give a slight profit. As no increased capital has been required, the slight profit is an addition to the net profits of the entire business. Instead of charging higher prices at home to make up for the lower prices abroad, the merchant, now that his profits are greater, may lower prices at home also. The discrimination, therefore, benefits those who appear to be discriminated against.

Required Work

2. If a grocer buys sugar delivered at his store at $5.45 per hundred pounds, what will be the amount of his mercantile profit if he sells eighteen pounds for a dollar? What per cent will this profit be? What sum will it amount to if he sells twenty dollars' worth a day? What will it amount to in a year?

3. If the grocer can sell out his stock of sugar and get his pay for it once in five weeks on an average, how much capital must be invested in his sugar trade? What annual rate of interest on this capital will his profits amount to? If $40 be taken out of these profits for the expense of running the store, at what price would sugar have to be sold to bring a net interest of seven per cent on the capital?

4. The grocer has a stock of goods worth $2000, furniture and fixtures in the store worth $300, and delivery horses and wagons worth $200. He pays $400 a year rent for the store; other expenses, not counting cost of new goods and his own work, amount to $1000. If he turns over his stock on the average four times a year, what must be his average rate of gross profit on each sale to pay a fair interest on the capital, allow $200 a year for risk of failure, and leave the owner a clear reward for his work of $1000?

5. Prepare an original illustration similar to the one in the above three examples and be able to explain it to the class.

Optional Work

6. Submit your illustration just made to some one who is familiar with the business illustrated. Then revise in the light of his criticisms.

7. Construct a table on the plan given below for at least six lines of business. First write in what you would expect the rates of profit to be; then, if possible, show them to some well-informed person for correction. Under "Remarks" state why you placed the rate high or low.

Line of business	Average profit on each sale	Net profit per year	Remarks
WHOLESALE	%	%	
Groceries			
Lumber			
RETAIL			
Groceries			
Dry-goods			
Lumber			
Boots and shoes			
Drugs			

8. Find examples of discrimination such as is discussed in the last paragraph of the text.

§ 33. The Trade in Securities

1. What is a corporation? A company?

2. What are stocks? What is preferred stock? Common stock? How are they transferred?

3. How are the profits of a company distributed?
4. What are bonds? Coupon bonds? Registered bonds? How are bonds transferred?

A very considerable part of the buying and selling in highly developed countries like England and the United States is not in material goods, but in mere titles to wealth. These are known collectively as securities, but are of two great classes, — stocks and bonds.

The price of stock depends not at all on its par value or the amount of money originally invested in the corporation when the stock was issued. It depends (1) most of all on the amount of the dividends the stock now pays; also (2) on their probable amounts in future years, that is, on the stability and prospects of the corporation. Something also depends on what there would be in the way of a final dividend for each share if the company should go out of business, divide its assets, and disband. These two factors must be balanced against a third (3), namely, the usual rate of interest realized on investments.

As we have seen, the competition on the one hand of those who have new capital to invest, and on the other hand of those who are seeking additional capital to use in business, establishes a rate of interest which is fairly uniform for a given time and place from investments of a given degree of security. Thirty years ago this was six or seven per cent for good securities; ten years ago it was about five per cent; now it is between three and four per cent. Stock will be worth such a sum as invested under

the prevailing conditions would bring an income equal to the dividends. Thus, a safe stock, paying annual dividends of $8 on each share, will now be worth over $200 ; ten years ago it would have been worth only $160. The lower the market rate of interest, the more a stock paying a given dividend is worth, and *vice versa.*

This principle governs the market price of all sources of fixed incomes such as lands, patents, annuities, and monopolies. It also determines the price of bonds. The reason for a premium or discount in the price of a bond is the difference between the rate of interest it bears and the market rate that can be realized on investments similar in security and other conditions affecting their attractiveness. This difference recurring periodically becomes an annuity for the term the bond has to run, and its present worth is the premium on the bond when the bond rate exceeds the market rate, or the discount when the bond rate is less than the market rate.

The possession of a majority of the stock of a corporation gives control of the corporation. Hence shares of stock sometimes have a value for this purpose higher than the dividends alone would warrant. The bonds of the United States government also have an artificially high price due to their being required as security for the circulation of national banks. This is especially true of the new two per cents, as the Act of April 14, 1900, which authorized their issue, provided that the notes secured by them should be taxed only one-half of one per cent instead of the former uniform rate of one per cent.

Bonds and stocks are handled by all bankers to some extent. But all the large cities have dealers who make the buying and selling of securities their chief business. An entire issue of bonds is often bought by a dealer who will then re-sell them to persons who wish them as investments.

Required Work

5. Make a sample financial statement for a corporation in the following form: —

—— bonds, par value of each	$——	$——	
—— shares of preferred stock, each	$——	$——	
—— shares of common stock, each	$——	$——	
Total capital		$——	
Gross receipts for a year			$——
Operating expenses			$——
Net receipts			$——
Interest on bonds at —%			$——
Balance for stockholders			$——
Dividend on preferred stock at —%			$——
Balance for dividend on common stock			$——
Per cent of dividend on common stock —%			

6. If real interest is at three and three-fourths per cent, what will the bonds be worth? Assume that the bonds will be payable ten years hence. Consult the Bond-Value Tables in the Appendix.

7. If interest is at four per cent what will the preferred stock be worth? The common stock?

8. In 1898 the Carnegie Steel Companies made a profit of $20,000,000. If average profits are one-half of this amount, what would the securities of these companies be worth on the basis of four per cent interest?

9. In April, 1900, the stock of the Chicago and Northwestern Railroad was selling at 162. On the basis of four per cent interest, what must the dividends have been?

10. A piece of property brings an annual rental, above all expenses, of $2500. What would the property be worth on the basis of six per cent interest? What would it be worth if interest should fall to five per cent? To four per cent? To three and one-half per cent?

11. In 1894 the United States government sold $50,000,000 of ten-year five per cent bonds for $58,633,295. What was the real rate of interest?

12. A western city was about to issue five per cent twenty-year bonds. The mayor demanded a price that would make the interest three and one-half per cent. There were no bids. Later, the bonds were sold at 119. What price did the mayor ask, and at what rate did the city make its loan?

13. In January, 1898, Chicago, Burlington, and Quincy five per cent bonds due in 1913 were selling at 107. At what real rate were investors willing to lend to the company?

Optional Work

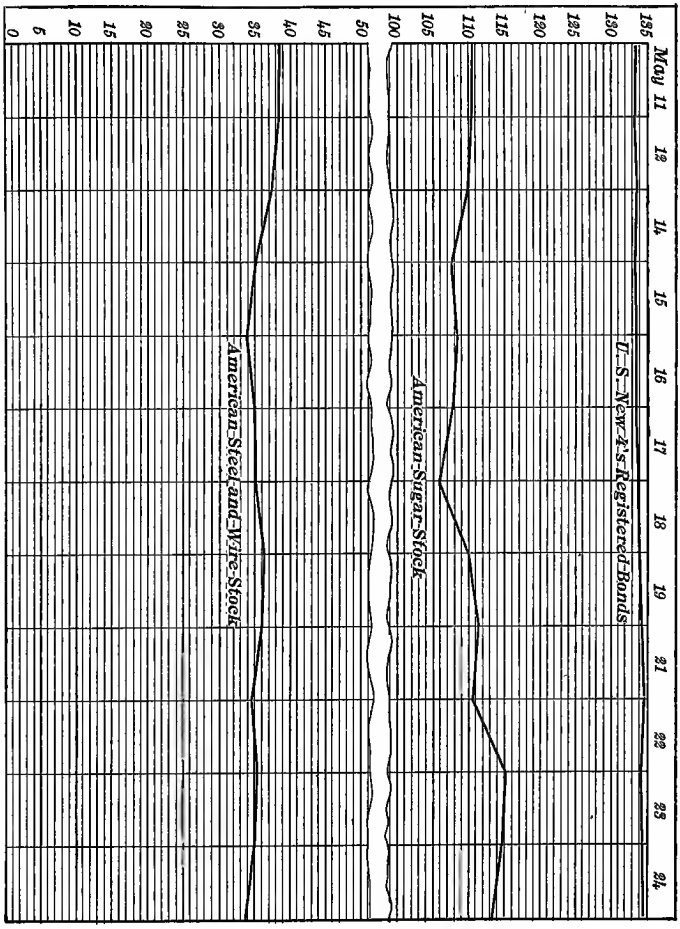
14. In 1896 the United States government sold $62,315,400 of four per cent thirty-year bonds for 3,500,000 ounces of gold coin. The gold dollar weighs 25.8 grains. What was the real rate of interest?

15. Derive one of the formulæ given on pages 214–217 (Appendix) for determining the value of a bond.

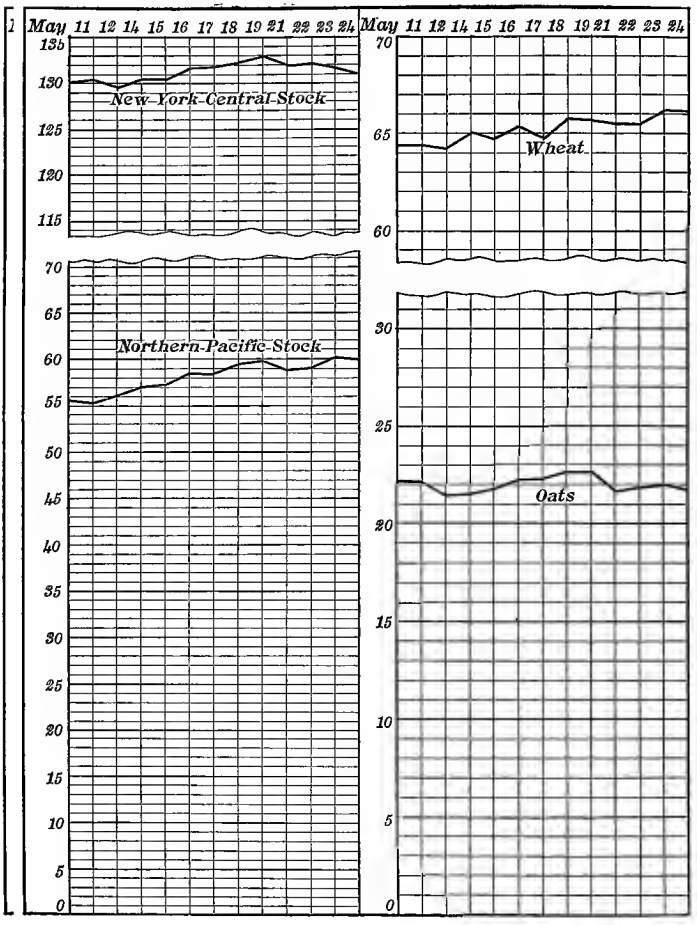
16. When real interest is at three per cent, what is the value of a bond that has sixty years to run and pays four per cent interest? Use one of the formulæ.

17. In April, 1898, 109 was bid for Illinois Central first mortgage gold bonds due in 1951 bearing four per cent interest payable semi-annually. What was the real rate of interest?

FLUCTUATIONS IN PRICES DURING TWO WEEKS IN MAY, 1900



FLUCTUATIONS IN PRICES DURING TWO WEEKS IN MAY, 1900



§ 34. Speculative Trade

1. A far-sighted dealer buys grain in time of plenty when it is cheap and sells it in time of scarcity when it is dear. Is this beneficial to the community?

2. What is understood by *speculator* and *speculation?* How extensively is speculation carried on? Does the ordinary grocer speculate when he buys several months' supply of sugar in the expectation that it is going to be higher? The housekeeper who lays in an extra supply for the household?

3. Two men bet on what the price of wheat will be the last day of next month. If the price goes up above the present price, A will pay B $10 for every one-eighth of a cent of increase; if the price goes down, B will pay A $10 for each one-eighth of a cent of fall. How will this transaction affect people who have raised wheat which they wish to sell? People who have to buy wheat or flour for their own use?

4. The students may tell the class what they already know of how speculative trade is carried on. The class may analyze each instance given, as with exercises 1 and 3 above.

With reference to this subject, people may be divided into three classes: (1) Those who never speculate, who sell what they have to sell as soon as it is ready, and buy what they buy when the need for it arises or the means of payment comes to hand. The poor are usually found in this class; limited means, and sometimes also lack of intelligence or of self-control, prevent them from speculation even in a small way. Then a great part of the personal expenditures of all classes, even the very wealthy, are made when prompted by desires and therefore with no thought of speculation. (2) Those who "take

advantage of the market" by holding what they have to sell till a good price offers, or by anticipating future wants when a chance comes to buy on specially favorable terms. Their trading is not very different in kind or amount from what it would be anyway in the long run, but it is timed carefully so as to give the greatest profit. While they are not speculators in the strict sense of that term, still a part of their business is really speculative in character. In outlay to satisfy personal or family wants this motive is most prominent among people of the middle class; and it may be assumed to be always present in the buying and selling of all classes for business purposes. (3) Speculators, in the strict sense of that term, are those who buy when they think goods are going to be higher, or sell when they think goods are going to be lower, with the aim of making a profit out of the fluctuations in market price.

People of the second class named above, who merely time their necessary buying and selling so as to "take advantage of the market," make a practice of transferring the actual goods at the time of or shortly after each sale. So also do some of the speculators named in the third class, but not all of them. Some speculators buy and sell, but do not transfer any goods, and do not expect to. Their dealing is essentially like that of the men in exercise 3 above, though it is carried on in this way: A sells B eight thousand bushels of wheat for delivery on the last day of next month. However, when that date arrives, no wheat is delivered. A and B close the transaction by transferring a sum of money from the

loser to the winner equal to the change that has taken place in the value of the eight thousand bushels of wheat. They do not really buy the wheat; they only bet on its price at a future date. It is a pure gambling operation. The larger part of the grain, cotton, and other produce bought and sold at the famous exchanges in our largest cities is transferred only in this fictitious way.

These two forms of speculation are closely associated in the commercial world; they are often carried on in the same room and by the same person; but their results are not the same. The sales in which no goods are delivered have no more results on the public than any other gambling operations. But speculators who buy the goods, and store them for future use or who hurry the stores of goods out into use when they foresee a time of plenty, are real merchants and have a useful function to perform. They assist the community to make the time of scarcity and the time of abundance moderate each other; they steady prices and make the extremes of high and low prices less extreme than they would otherwise be.

Now comes one important question: Can speculators cause such a change in prices as will enrich themselves at the expense of the public? The answer is that they cannot in the manner assumed by the question. It is an easy matter for one who has the money to buy up enough of the supply of any article to raise its price, as Joseph Leiter bought up enough wheat in Chicago in 1897 to more than double its price. But when the speculator attempts

to realize his gains by selling off the stock he has bought, the price goes down again; if buying a million bushels of wheat and stowing it away in an elevator raises the price ten cents, why should not the price fall ten cents when that wheat is taken out of the elevator and put on the market again? Leiter was obliged to sell much of his wheat in 1898 for even less than he had paid for it, because the high prices had increased the amount of wheat on the market by bringing it from farmers' granaries, where it would otherwise have remained out of sight. When speculators as a class get rich, they do it by exercising foresight superior to that of the mass of the community; in this case they benefit the community as well as themselves. More often, however, some speculators get rich at the expense of other speculators, and the public neither gains nor loses. These "other speculators," whose many losses make the great gains of the few, are often the ignorant or inexperienced operators who are seeking a short road to wealth or are taking a hand in the game for the excitement there is in it.

But there are several ways in which speculators cause a real injury to the community. Some of these come from their erroneous forecasts of the market. If speculators assume that there is going to be a scarcity, when in fact there comes moderate plenty instead, there are numerous bad results, aside from the losses of the speculators themselves. Everybody in the country who has anything to do with the production or consumption of the article in question is compelled to be a party to this miscalculation and

may draw erroneous conclusions from it that will lead to serious results in his own business. Any fluctuation in price is a disadvantage to the community, and a useless change in price due to wrong forecast is a double disadvantage. But the worst results of speculation come from its gambling features, — the staking of so much on a hazard, the transfer of wealth from one person to another without an equivalent value received, the sudden gains and losses which promote lavish expenditure in the winners, together with poverty and despair in the losers, and the notoriety which arises from all this and tends to discourage the thrifty industry that lies at the foundation of all national wealth.

It remains for us to notice what classes of goods are selected for speculative activity. The essential requirement is that the goods be of such a sort that they need not be present with the dealers or even be seen by them, but can safely be bought by name or grade. This necessitates that (1) the goods be well known and sufficiently abundant, and (2) that they be of uniform quality or fall into a few easily determined and universally recognized grades. Articles like wool and tobacco are largely excluded; they cannot be bid off unseen; the only sure way is to buy them by sample. The products which best satisfy the conditions are wheat and cotton, but a long list of others could be added that are not so well known. Securities form another splendid material for speculators to work upon, especially the shares of stock in well-known corporations. All the shares of a given kind are perfectly uniform;

one is just as valuable as another, and there is enough uncertainty regarding the dividends they will pay in the future to tempt speculation. The serious difficulty here is that a little clique of stock speculators may have such influence with the management of a corporation — they may even hold the chief offices in it — as to dictate a policy not in the interest of the stockholders or of the patrons, but solely to influence the price of stock to their own profit. The stock of such corporations is usually known as speculative stock, and wise investors let it alone, as only those who have inside information can safely be shareholders. Conservative business men do much to prevent mere speculators from having too much influence on the prices of stocks, and especially from directing the policy of corporations for stock-jobbing purposes. Bonds of the great governments and corporations are handled by speculators, especially when there is some insecurity connected with them, as insecurity is the speculator's opportunity.

For Discussion

5. Explain *bulls* and *bears, selling short,* selling or buying on *margins,* a *corner* in the market.

6. If a speculator should contract for delivery to himself at a future date a larger quantity of goods than the entire market could get possession of, on what terms could settlement be made with those who had promised to deliver the goods?

7. Name several ways in which the far-sighted dealer in exercise 1 benefits the community.

8. Make a list of the points of similarity and of dissimilarity between him and a real speculator.

9. Develop further the bad results that might come to the community from the erroneous forecast of an influential speculator.

Required Work

10. Make a table, and from the table a chart on the plan of those given on pages 131, 132, showing the fluctuations in the price of something for several days past. See the newspapers.

11. Assume that a given sum had been invested in this article in five per cent margins. Compute the amount and per cent of loss or gain.

Optional Work

12. For how many different products are quotations given in the market column of some newspaper? For how many different kinds of shares of stock? Of bonds?

13. Give an account of some speculative deal. Get the information from one who knows or from files of newspapers.

14. References: Eaton, 101–4; Nelson, 13–73.

§ 35. Commercial Crises

1. When there is a belief that prices are going to rise, what is the effect on demand for goods, readiness to sell, and prices? The effect of a belief that prices will fall?

Speculative trading, which was treated in the preceding section, is the cause of an interesting phenomenon in the modern business world, namely, the commercial crisis. Speaking more carefully, it is the most prominent cause of the *credit cycle* in which the crisis stands forth as the most prominent feature.

It has been observed that good times and dull times in business alternate with each other. *Good times* have their origin in the hopeful state of mind

of business men, or in the circumstances of whatever sort that make them hopeful. Believing that business is going to be good, — that prices will be higher, — merchants and manufacturers lay in supplies for future use in order to be ready for the coming demand and to have these very supplies before their prices go up. Now this very conduct of theirs tends to make business better and make prices higher; it would have this result even if the original reason for their belief that better times were near at hand had been entirely unfounded. In other words, the mere belief that prices are going to be higher will of itself tend to make them higher.

The rise of prices once started tends to grow of itself, to extend from one line of goods to another, from one section of the country to another, and from a high level of prices to a still higher one; the more confident do speculators become that they can buy up almost anything, hold it a time, then sell at a large advance in price. This progressive rise of prices is aided by the expansion of credit which will be described briefly in the next section. For the present we merely wish to note that good times may develop into such a feverish condition of business, with prices soaring at a giddy height, as to be appropriately termed *times of speculation.*

But all things come to an end, and so does this progressive rise of prices. Something happens: it may be the failure of a bank or of a prominent merchant; it may be the rumor of a war, of a lower tariff, or of a change in the money system of the country; something alarms the business men of the

country, they fear that prices will rise no higher and may fall lower, and everybody makes haste to sell what he has before the drop comes. When everybody wants to sell, and nobody wants to buy, prices go down even if there be no other reason for it. And they go down with a rush; a few hours or a few days may see a fall as great as the rise had been for the five years preceding. Banks fail, business men fail, rates of interest rise to hundreds per cent, and all sorts of shocking things happen. This is the *panic* or *commercial crisis.*

The panic does not last long, but for several years after it business is dull and prices are low. The country experiences *hard times.* In time there is a gradual recovery; young men come to the front who had no real experience of the panic and think it mostly a bogey anyway, business picks up slowly, and at last prices move upward a little. Then everything starts up to go around the cycle again.

Commercial crises have sometimes come at intervals of ten or eleven years, but the United States has had only three great ones; they occurred in 1837, 1873, and 1893.

Optional Work

2. Present to the class incidents learned from business men about the last panic.

3. Read in some of the larger histories of the United States about the panic of 1873. Of 1837.

4. References: B., 282–96; W., 150–60; N., 168–72; L. M., 325–43; M. II., 64–70, 77–9; H., 295–9; Nich. II., 131–7, 206–14.

5. Compare the bank clearings in New York for the year before a panic with the year after. See S. A., 70.

CHAPTER VIII.

PAYMENTS

§ 36. Banks

1. Name some banks that you know. What kinds of business are carried on there? Describe each kind of business as precisely as possible.

2. What is a bank check? Trace its course from the person who drew it until it returns to him again.

Some banks *issue notes*, but not all. Issuing notes is not a necessary function of banking.

A bank will usually change money for any one, and will always do it for its customers. A bank will sell to any one a draft payable in any part of the country, or perhaps even in some foreign country. A bank will cash a draft drawn by a bank in another part of the country or a check drawn on such a bank. This is called *exchange business*.

Banks *lend money;* they may lend their own capital and also the money that is deposited with them for safe keeping. The interest received for these loans is the main source of a bank's income. Much lending by banks is done in a form called *discount*.

Banks *receive deposits*. Deposits made for a stated time, like six months, bear interest and are known as time-deposits. Most deposits can be drawn out

at any time; such do not bear interest except by special agreement in the case of large deposits.

Deposits that can be drawn out at any time (and these only will receive any further attention in this book) are usually drawn by means of checks. A *check* is an order drawn by a depositor on his bank directing that a sum named be paid to a person named. The person named receives this check from the one who drew it and can get the money on it at a bank or he can sign the check over to some one else who can then get the money. Most people who receive checks do not draw the money on them, but deposit them at whatever banks they do business with exactly as if they were money. That is the chief reason why banks do not ordinarily need to be in readiness to pay out more than five per cent of their deposits in actual cash. Even persons who borrow of banks may prefer to have their loans deposited to their credit instead of given them in money.

When a bank cashes a check (and this includes receiving a check on deposit) which was drawn by one of its own depositors, it subtracts the amount of the check from his deposit. Checks received which were drawn on another bank in the same city are sent to the other bank at a given time each day. When there are a number of banks in a city, this interchange of checks is all done at the same time at a place called the *clearing house*. Each bank settles with the clearing house instead of with each of the other banks; only the balances are paid in cash.

A bank carries on its exchange with other parts of the country by means of a list of banks called correspondents. Thus a bank in Oshkosh will have one correspondent in St. Paul, another in Milwaukee, another in Chicago, and another in New York, besides numerous smaller banks in towns that are tributary to Oshkosh. Nearly every bank in the country has a correspondent bank in New York, and most banks in the West have correspondents in Chicago. When a bank receives a check drawn on a bank in another city, it sends the check to its correspondent in that city, if it has one there, otherwise to that correspondent which has most convenient access to that city.

In § 7 it was noticed that the general level of prices in a country is affected by the amount of money in the country. But it is now evident, and the next two sections will make it still more evident, that more payments are made in checks or drafts and other credit instruments than in money. The quantity of these representatives of money can expand or contract while the amount of money remains stationary, and their quantity affects prices the same as the quantity of money itself. One element in the credit cycle discussed in the preceding section is the great increase of checks and drafts in time of speculation, and their decrease in time of depression. If there were no banks, a general increase in purchases could scarcely take place, because the money to pay with could not be obtained. It is credit as organized by the banks that makes possible the increased purchases in time of speculation.

Required Work

3. Who are the three parties named on a check? On a bank draft? What is the difference between a check and a draft?

4. Prepare to explain the operations of the clearing house.

5. A bank has a capital of $10,000 and deposits amounting to $50,000. On half of these deposits it pays two and one-half per cent interest, on the other half it pays no interest. It keeps on hand an average of $4000 in cash; the remainder of its money is loaned to persons or corporations or is deposited in other banks, and brings in an average yearly interest of six per cent. It makes $765 a year out of its exchange business. It loses $400 on bad loans and pays $2500 for expenses. How much can be divided as dividends? What per cent will the dividends be? If this is an average year's business, what would the stock of the bank be worth, assuming that it must yield five per cent on the investment?

Optional Work

6. Explain the difference between loans and discounts. Consult a banker.

7. Trace the course of a draft or check that goes through banks in two or more cities.

8. Put a bank statement on the blackboard and explain it.

9. References: B., 273–17; W., 313–9; L., 328–38; N., 158–67, 179–86; Dunbar, 1–81; E., 162–3; L., 149–53; Nich. II., 164–7; H., 235–7; Eaton, 9–32; Nelson, 76–84.

§ 37. The Use of Credit

1. What examples have you known of goods not being paid for at the time they are bought? What are the reasons for it?

If retail customers were always required to pay cash for what they bought, they would have to keep money on hand all the time, and often have to keep considerable sums for which they had no immediate need; occasionally they would suffer great inconvenience. Those who had regular incomes would not wholly escape these disadvantages, and those whose incomes were uncertain or irregular would feel their full force. All would be trying to steer between the two opposite undesirables — the empty purse and the large sum of idle money.

If the dealer were always required to pay cash for all that he bought, it would necessitate his having a capital at least as large as the largest stock of goods that he would ever need to have on hand at one time. Then there would be times when he would not need such a large stock and some of his capital would be idle. Furthermore, men with proved ability to carry on business and make it pay, but who lacked capital, would be excluded from it, to the loss of the community as well as of themselves; and new communities with little capital, but certain of being able to pay in the near future, would be unable to buy.

These disadvantages are all met by the system of credit. In nearly every business which has many buyers and few sellers, the sellers take on themselves the burden of adjusting these inequalities by permitting regular customers to buy on credit, provided only the means of ultimate payment are certain. For the sake of simplicity, the length of credit given is generally uniform in each line of trade; but the intention is not to require the purchaser to pay for

his goods until the ordinary course of business brings him means of paying for them. Thus in retail trade, credit is given until the customers get their wages or salaries, which means until the end of the month in most cases; stores whose customers are laborers getting their pay weekly require that goods sold be paid for weekly. In the wholesale trade, the term of credit depends on how long the buyer will have to carry the goods before he can sell them and get his pay, at least in part; each line of goods, therefore, has its own term of credit, and each bill of goods sold is allowed to run this length of time before payment is demanded. The grocer's sugar sells quickly, and so he must pay his wholesaler for it at the end of a month from the date of sale; on most of his other goods the time is two months; on tea, which sells most slowly of all, the time is three or four months.

When the sellers are many and the buyers are few, the general rule is to give no credit. In a few businesses, however, the buyer gives the credit, *i.e.* he pays for the goods before he gets them. Thus the wholesaler of lumber contracts with a saw-mill for a certain amount of lumber; he pays part of the price when the mill gets the logs on hand, and additional installments as the lumber is sawed and piled on the premises of the mill. The wholesaler presumably has more capital and can carry the goods easier than the mill owner.

Prices are always fixed with the expectation that the usual credit will be given. If the purchaser at wholesale has sufficient capital to pay cash for his

goods, a discount will always be given; sometimes the same thing is done in retail trade.

It remains to see how the banks furnish much of the capital for doing business on credit. Instead of buying his goods on time, the buyer may borrow the money at a bank in his own city and pay cash for them so as to get the discount; or the seller may sell on time and then immediately borrow of the bank in his city an amount nearly equal to the sum due him and for a similar length of time. There are two ways of doing this: he may require his customer to sign a note or a time draft which he will sell to his bank, thus turning over to the bank the collection of the money when the note or draft falls due; or he may make to his banker a statement of the condition of his business, showing how much will come to him from his customers in a few weeks or months for goods already sold, and then borrow on his own note up to the amount the banker thinks safe to lend him. Between wholesalers and small retailers the latter method is nearly always followed when the purchaser does not borrow and pay cash. Between jobbers, wholesalers, importers and exporters, and large manufacturers the former method prevails, especially in the older portions of the country; the essential condition is that the customer whose note or draft is offered for discount shall be known to the banker.

Required Work

2. Give one example of the use of credit. State all of the conditions carefully, and show how credit is a convenience.

Optional Work

3. Describe fully the credit system in use with some line of goods.

4. Modify the example of the grocer on page 124 by assuming that his wholesaler lets him have an additional $2000 worth of goods on two months' credit. The grocer sells half of his goods for spot cash and the other half on monthly bills. In case of the latter, two weeks is the average length of credit before the end of the month, but it takes an additional week to make out the bills, present them, and collect the money.

5. Make an example similar to the above for some other kind of business.

§ 38. How Payments are Made

1. Name as many ways as you know of by which payments can be made in distant places.

2. What are the three parties whose names appear on a bank check? On a bank draft? Which one is a debtor? Which one is a creditor?

3. Explain the post-office money order. The commercial draft or bill of exchange.

The numerous ways by which a debtor may make payment to a distant creditor may be divided into two classes: he may send to the creditor either the money or some document that will enable him to get the money; he may wait for the creditor to *draw* on him by sending him a document which requires him to pay the money to a third party.

Merchants rarely send money itself. Only bankers make a business of shipping money. The substitute

for money most familiar to the public is the postal money order. The principle of the postal order is also the basis of the express order and the sending of money by telegraph. Among business men the bank check is more extensively used than all other means of payment combined. The bank draft comes next in importance.

The commercial draft which the creditor draws on the debtor is like the bank draft or the check, in that it is an order of the creditor addressed to the debtor; but the bank draft and the check are drawn on deposits of money, the debtor being the bank holding the deposit, while the commercial draft is drawn on a debt which originated in a sale of goods. The commercial draft on a debtor in a foreign country is often called a bill of exchange. The draft which demands immediate payment is called a sight draft. But many drafts are made payable thirty, sixty, or ninety days after sight; these are called time drafts. By "sight" is meant the date when the draft is presented to the drawee; he then accepts it by writing his name across the face; when the required number of days have elapsed, it is presented to him again for payment.

As was stated in the preceding section, commercial drafts are most used in the older portions of the United States where business is most highly developed. They prevail in international trade the world over, and in England, the world's trade center.

The drawer of a commercial draft either sells it to his banker or places it in the hands of his banker for collection. This bank sends the draft to its correspondent bank in the place where the drawee does

business; the latter bank gets the draft accepted, collects the money at maturity, and remits or deposits to the credit of the former bank. The exporter as soon as he has shipped his goods, draws a draft on the person to whom they are sent, pins to it the bill of lading of the transportation company and the receipt of the marine insurance company, and sells it to a banker. The banker sends the draft to his correspondent nearest the destination of the goods, who will collect the money and hold it to his credit. Now an importer who wishes to make a payment abroad will come to this same banker and buy a bank draft, which the banker may perhaps draw on the same correspondent to whom he sent the commercial draft; the two payments will thus tend to offset each other.

Merchants in England have long been accustomed to wait for their creditors in foreign countries to draw on them; at the same time they require that debtors in foreign countries shall make payment in drafts drawn on England. The result of this is that the greater part of the commercial drafts that arise in foreign trade are drawn *on* England by those who export goods to England from other parts of the world, but few of them are drawn *in* England. The banker's drafts are also mostly drawn *on* England in the various other countries and are sent to England, but their purpose is to pay for the goods the various countries have bought from England. This means that most foreign drafts, both those drawn by merchants and those drawn by bankers, are payable by merchants or bankers in England in pounds sterling.

Required Work

4. Explain *drawer*, *drawee*, and *payee*. Which one is probably a creditor? A debtor?

5. Be prepared to write on the blackboard sample bank checks, bank drafts, and commercial drafts.

6. Trace the course of a commercial draft from the drawer until it returns to him again. Compare this with the course of a bank check.

Optional Work

7. Give an account of the way payments are made in some line of trade.

8. Exhibit samples of the various documents mentioned in this section.

9. References: Eaton, 39–41; N., 183–6; Nelson, 84–95.

§ 39. Exchange

1. Give the various definitions of the word *exchange*.

2. A banker in Milwaukee speaks of selling New York exchange. Another banker says he has plenty of New York exchange. What does each mean?

Domestic exchange is handled by ordinary banks as a part of their regular business, but not so foreign exchange; that is more often a business by itself in the hands of the foreign exchange brokers or bankers. Many ordinary banks buy and sell foreign drafts, but they usually do it through the foreign bankers at New York.

An illustration will best show how the exchange business is carried on. During a given week merchants and manufacturers doing business in New York

City may have sold to others in Chicago to the amount of $20,000,000. The Chicago people will pay for these in some one of the ways treated in the preceding section.

These modes of payment all alike result in the Chicago banks owing the New York banks the full amount involved, or at least they would owe that amount if there were nothing to offset against it. But during the same week Chicago may have sold to New York to the amount of $22,000,000, which will be paid for in the same way except that the checks and drafts will travel in the opposite direction. The New York banks will now owe the Chicago banks only a balance of $2,000,000. The Chicago banks will have plenty of New York *exchange to sell*, that is, they would be glad to sell more drafts to persons having payments to make in New York, and so transfer to their own vaults some of the money standing to their credit in New York. The next week the balance may be on the other side, and New York exchange will be scarce in Chicago. If the net balances should be in favor of Chicago for a long time, the New York banks would have to ship the amount of them to Chicago in money.

Such would be the situation if Chicago and New York did business only with each other; but each also does business with practically the entire United States. In reality, therefore, it is the payments from the rest of the country to Chicago that are offset against the payments from Chicago to the rest of the country. The clearing house through which their payments are all unified is New York. Banks

throughout the United States keep deposits in New York banks all the time so that they are always able to draw drafts on New York. Balances between the banks of the different cities are usually paid in New York exchange. For example, if business between Chicago and St. Louis is giving a balance of payments to Chicago, the St. Louis banks will pay this by sending to the Chicago bankers drafts on New York. So when a city adjusts its balance with New York, receiving or paying as the case may be, it in reality adjusts at the same time its balance with the countless other places that have had money transactions with it. And it is possible to speak of the exchange market of a city as a unit in this way, because the banks in a city coöperate so freely; the bank that has plenty of New York exchange will sell to the bank that needs some, and no bank in a city need have money shipped to or from New York unless all the other banks in the same city are in about the same condition as regards New York exchange.

International payments are arbitrated in the same way, with London as their center. For example, a Minneapolis miller exports flour to Europe and draws bills of exchange on the dealers to whom he ships. The bills are payable in the money of the country on which they are drawn: if drawn on England, they call for pounds sterling; if on France, they call for francs; if on Germany, they call for marks. The miller sells his bills to Minneapolis bankers, who in turn sell them to brokers in New York. The brokers then send them, in most cases, to their correspondents in London, and are credited there with

pounds sterling. Then when the merchant who has imported coffee from Brazil comes to the broker for a draft with which he can make payment in Brazil, the broker draws a draft on his London correspondent, and thus uses his sterling exchange. This example is typical of the foreign exchange business of the United States. There is a large balance due us from Europe; this is used to pay the balance against us in our trade with the tropics. The commercial drafts of our exporters give us London exchange; the banker's drafts drawn for the use of our importers exhaust it.

It should now be clear that exchange with any distant point is bought and sold like goods. And like goods, its price varies according to supply and demand; $10,000 in St. Paul may not be worth the same as $10,000 in New York. If New York exchange is scarce in St. Paul, a merchant there who has a sight draft on New York to sell can get $10,006 for it; if it is plenty, he would have to sell his draft at a discount of $6.

The amount to which the discount or premium can rise depends on the cost to the banker of shipping money between the two points. This cost consists of several items. First comes the expressage or the postage and registry fee on the package of money; and if the package is not carried by a company that guarantees delivery, it must be insured, and that costs something. Then there is the loss the banker will suffer in not being able to use the money while it is in transit; this depends on two factors — the length of time for the shipment and the rate of interest on

short loans. Then gold coin that has been in circulation is always worn enough to make it at least a trifle less than legal weight, and it loses some from wear even while in transit; gold in large sums passes by weight and not by count, and so the shipper of gold must stand the loss caused by the deficiency in weight. Finally, there is the cost or work of packing the money for shipment.

If the premium goes above the point that will cover this cost, the banker will *make* all the exchange either he or his patrons will want by sending money to the city on which exchange is in demand. When the discount reaches the cost of shipment, the banker will get rid of his exchange by having the money shipped from the exchange city to another place or to himself.

In New York, exchange on the principal money markets of Europe is bought and sold. The larger part of it is exchange on London, just as within the United States most of the exchange handled is that on New York. The pound sterling equals $4.866+ in United States money. The cost of shipment between New York and London is two or three cents. Therefore, the price of sterling exchange will range between $4.84 and $4.90.

The money of international trade is gold. Whether it is coin or bullion makes little difference, as it passes by weight in any case. Bullion in the form of bars is a little better because the wear is not so great as with coin. Brokers ordinarily obtain bullion for export from the United States assay office in New York, and there they dispose of the bullion they receive.

Required Work

3. Find in a newspaper what the present rate of sterling exchange is. For how much could an exporter of flour sell a draft on a merchant in Liverpool that called for the payment of £750 at sight?

4. What is the present rate for sixty-day bills? What would the above draft bring if it called for payment sixty days after sight?

5. Is gold now being imported or exported?

Optional Work

6. Learn from a banker how foreign exchange is managed. Domestic exchange.

7. Find the maximum rate of exchange between your city and New York, Chicago, San Francisco, or some other point in the United States. Make an example like exercise 3 above, illustrating domestic exchange.

8. In some years there has been a heavy balance of trade for or against the United States. Observe if the flow of money was in such a direction as to tend to pay this balance. See S. A., 74, 75, 92.

CHAPTER IX.

HOW THE EQUILIBRIUM IS MAINTAINED

§ 40. Prices and the Flow of Money

1. How does a change in the amount of money affect prices?

2. If the balance of trade is for a long time against New York, and considerable money must be sent to Chicago or London or other places to pay it, trace the result successively on —

(*a*) Prices in New York and prices in the other places.

(*b*) The demand of other places for goods from New York, and New York's demand for goods from the other places.

(*c*) The balance of trade between New York and the other places.

We have now seen how an individual's purchases must equal his sales, his receipts equal his outlay. We have also seen, by an actual study of the figures, that the same principle holds true approximately of a nation; a nation's imports about equal its exports. The exceptions can usually be explained as due to the buying or selling of other things than goods which appear in commercial tables. To state it differently, a community, like an individual, really pays for its purchases with its sales, and really receives its purchases as pay for its sales. Just how

is this brought about? It is easy enough to see that an individual can pay out only as much money as he receives, and will usually pay out every penny he receives. But how do the million and a half of people in Chicago, each one acting for himself, make their purchases from outside of their city come anywhere near their sales outside? How does it come about that the seventy million of people in the United States, some buying abroad who never sell, and some selling abroad who rarely buy, in the aggregate buy as much as they sell?

The rates of exchange operate to a small extent to equalize the purchases and sales of communities. Thus when the balance of trade is running against the United States, and sterling exchange is selling in New York at $4.90, the exporter can sell his drafts on London at a premium of one-half of one per cent; this will stimulate him to ship more goods. The importer, on the other hand, who has to pay this premium for the drafts he sends to his creditors abroad, suffers a corresponding disadvantage which may lead him to diminish his purchases. Low exchange rates have the opposite results — discouraging exports and encouraging imports. But one-half of one per cent is a small item; a merchant will seldom change his plans because of it, and the rates of domestic exchange are only a small fraction of one per cent. Exchange rates, therefore, could not alone control buying and selling.

Rates of transportation have a precisely similar effect, and perhaps to a slightly greater degree. If a large quantity of goods is going in one direction,

and a small quantity in the other, the rates for the former will be high and for the latter low.

The parallel between the individual and the community can be carried a step further. The individual's expenditures are limited by the amount of money he can get hold of, and it may be assumed that he will spend all he gets. The same is true of the community; if it buys more than it sells, it must pay the difference in money, and the amount of this excess of purchases cannot be greater than the money the community is able to part with. But what determines the amount of money a community can part with?

We must recall the relation between the amount of money in the community and prices. Prices vary as the amount of money. Much money, high prices; little money, low prices. Some apparent exceptions to this rule are found, such as the influence of credit on prices; but exceptions only prove the rule (see Note at the end of this chapter). When the amount of money in a country increases, prices tend upward, and *vice versa*.

We must next recall the effect on purchases of a variation in prices (see § 31). If the grocer on the corner raises his prices, his customers are likely to buy less of him. If a dry-goods dealer advertises a reduction in prices and convinces people that it is a genuine reduction, customers will flock to his store. If the price of cord-wood goes up, and the price of coal goes down, less wood will be bought and more coal. If my neighbors raise the prices of their goods, I will try to buy goods at a distance; if they lower their

prices, I shall be inclined to buy goods of them, which I formerly bought at a distance.

Now putting two and two together, we see how it is determined what sum Chicago people will choose to spare to pay a balance of trade against them or when they will decide, as if by concerted action, that the balance must be made in their favor. A balance against the community is paid by taking money out of circulation; the money to pay for purchases from outside accumulates in the banks, and they send it away from time to time to keep up their supply of exchange. Decreasing the money in circulation lowers prices, or at least makes sales at the old prices more difficult; at the same time, places outside have more money and their prices are higher, or at least they are more ready to buy and less anxious to sell at old prices. Chicago people will therefore buy fewer things of outsiders, and outsiders will buy more things of them. In this way the unfavorable balance will disappear. The change may go on until Chicago buys less than it sells; money will flow in and prices rise; Chicagoans will then increase their purchases from outside, but outsiders will decrease their purchases of them until we have the situation we started out with.

This operation has been well illustrated during the past few years in the foreign trade of the United States. From 1876 to 1887 there was an excess of exports every year. As a result of this, gold flowed into the country in excess of that flowing out every year from 1878 to 1888. From 1870 to 1890, notwithstanding many improvements in production, the gen-

eral level of prices advanced, wages increased ten per cent. But in 1888 the natural results appeared in an excess of imports. Exports between 1884 and 1889 averaged one-eighth less than during the four years immediately preceding. From 1885 to 1893 imports increased every year except one. The outflow of gold began in 1889 and continued for several years. Since 1893 we have gone through another series of changes. The panic of that year caused a great fall in prices. In one year imports dropped off one-fourth and remained at a low point until 1898; exports increased every year but one until they were one-half greater in 1898 and 1899 than they had been five years before. From 1897 to 1900 there was an almost uninterrupted inflow of gold. Now the rise of prices is in progress; soon will come an increase of imports and a decrease of exports, an unfavorable balance of trade and an outflow of gold.

Required Work

3. Re-read §§ 7 and 31.

4. About 1820 the United States began a large exportation of cotton to England. Trace the result on the trade between the two countries.

5. During the last twenty-five years Americans have taken to traveling and living in Europe. Trace the results.

6. The Australian governments have made extensive internal improvements with money borrowed in England. Trace the results on the trade between the two countries.

7. From 1871 to 1874 France paid Germany a war indemnity of $1,000,000,000. What results would you expect to find on the trade of each?

For Discussion

8. Why should times of depression be times when imports are small and exports are on the increase? What must be the final result of this on the money and prices of the country? Why should times of speculation be just the opposite?

9. During the Civil War the Union government endeavored to suppress both the imports and the exports of the Confederacy, and nearly succeeded. How would the effect have been different if only imports had been stopped and exports had been allowed to go out unhindered?

10. Since 1893 people in the Western states have largely paid the debts which they owed to people in the Eastern states. Trace results on the trade between the two sections.

§ 41. Prices between Distant Countries

1. Would the change in the general level of prices in each of the exercises 4, 5, 7, and 10 above be permanent or temporary?

2. Tell what you can about the general level of prices and wages here as compared with California and the South. With Mexico, England, and Continental Europe. With India and China. In a large city as compared with the rural districts.

It is apparent from the preceding section that the flow of money from one place to another brings about such an adjustment of prices between the various places that each place will, in the long run, buy of the others as much as it sells to them. The endless fluctuations might be likened to the waves and tides of the sea; an arrangement of prices so that trade

would always be at equilibrium, with no transfers of money from one place to another, would be like the sea-level — that theoretical point, nowhere to be observed in reality; the water never stands there for a second, but the surface of the sea always tends to return to it after a disturbance.

This equilibrium of trade, which the exchange markets are always trying to bring about by the ceaseless shipment of money from one place to another, does not require that prices be the same everywhere; on the other hand, it requires that they be different. A region like California, which can produce nearly everything mankind desires, has little need of the products of other countries; but California can produce wine and fruit better than any other part of the United States, and other regions have great need of these products. If, therefore, prices were the same in California as in other parts, the outflow of goods from California would greatly exceed the inflow; the equilibrium can be maintained only by having prices much higher in California than elsewhere. Mexico has rich resources also, but the Mexicans lack skill and energy to work them; the Mexicans want the manufactures of other countries, but can offer little in return for them. Uniform prices would mean that Mexico's imports would be large and her exports small, necessitating an outflow of money. This would lessen the quantity of money in Mexico and lower prices there, until the increased sales in foreign markets would approximately equal the diminished purchases.

An excellent index of the general level of prices

in a country is found in the rate of wages for unskilled labor, though of course there are differences in the efficiency of labor. The average wages during 1896 in a number of great industrial centers of the world were published in the Bulletin of the Department of Labor for September, 1898. Here are a few examples to show the extent of the variation: —

	Blacksmith's Helpers	Laborers
Boston	$1.83	$1.44
Chicago	1.69	1.50
New Orleans	1.58	1.25
San Francisco	1.93	1.72
Manchester, Eng.	.93	...
Paris, France	.99	.96
Liege, Belgium	.53	.52

The attractiveness of a country's products in foreign markets depends on two factors — the exceptional character of its natural resources and the skill of its inhabitants. If both of these are lacking, as in some Asiatic countries, the range of prices will be very low. If natural resources are small in proportion to the number of people at work upon them, as is the case throughout western Europe, prices must be moderately low. Deficiency of energy and skill, such as prevails in all countries of a low degree of civilization, makes lower prices than deficiency of resources; an energetic people on a barren rock would manage to produce something that the world wanted. Where a people of great industrial efficiency has possession of extensive and exceptional natural resources, high prices must exist; otherwise these people would buy little of the rest of the world, and the

rest of the world would want to buy much of them. This is the condition of the United States as a whole, though of some portions more than others.

For Discussion

3. Is it desirable that the general level of prices should be high? For example, would the world be better off if all prices, wages, and salaries were twice as high as they are?

4. Do the conditions that usually make prices high in a country also benefit its people? Explain carefully.

5. Do the conditions that make prices low in a country also operate to keep its people poor?

§ 42. The Equilibrium as affected by Bounties and Tariffs

1. Suppose England should impose a heavy import duty on sugar which now comes in free. Trace the results on English foreign trade and prices.

2. Suppose the United States should remove the present heavy import duties on wool. Trace the results on our foreign trade.

The third question in the preceding section has nearly always been answered by statesmen, legislators, and the people generally in the affirmative. It has nearly always been assumed that an abundance of money and high prices are a good thing, and various artificial means have been adopted to secure them.

An old device of this kind, now abandoned, was to prohibit the exportation of money. The laws of England required that any one found carrying gold or silver out of the kingdom should forfeit his load and suffer punishment besides. But the law could

not be enforced successfully; it was too easy to smuggle the money out.

Rulers soon learned that a much better way to attain this aim was to encourage exports and discourage imports. The most direct way of encouraging exports is to pay a bounty on the goods that are sent out. A prominent example still exists in the sugar bounties of France and Germany.

Discouragement to imports is still almost universally applied in the form of import duties. In form they are usually for purposes of revenue; but that is not the only reason, as is shown by the fact that duties are rarely laid on exports, though they would yield a revenue just as well and interfere no more with commerce. Protective duties are supported by still other arguments, but the inflow of money and the rise of prices which follow each new imposition of duties are always cited approvingly. The outflow of money and the fall of prices following the removal of import duties constitute the chief historical argument in opposition to free trade.

Required Work

3. What would be the results if France and Germany should abandon the export bounties on sugar?

4. Suppose the Union government during the Civil War, instead of cutting off all trade between the Confederacy and the rest of the world, had stopped exports only and allowed imports to come in unhindered. Trace the results.

5. Suppose the United States were to establish a system of export duties. Trace the results. See Constitution, Article I, Section 9.

Optional Work

6. Find examples in our foreign trade of the effect of imposing new import duties. How long does it take trade to come to an equilibrium again after such a disturbance?

7. Collect the opinions of a few people as to whether it would be a good thing to have more money in the country. To have a higher level of prices and wages.

For Discussion

8. Do you see any connection between the tariff acts of 1894 and 1897, and the condition of business in this country from 1893 to 1899?

§ 43. Sharing the Advantages of Trade

1. Assume that California and Iowa can produce butter equally well, but that California can produce some fruits which Iowa cannot. Would both states profit by trading with each other in butter and fruits?

The advantage which a region gets out of the trade with each of its neighbors and with all of them in the aggregate makes another point from which to see how the equilibrium of buying and selling is maintained. As a subject by itself it is also well worth understanding.

Let us assume that Massachusetts and Minnesota have equal natural advantages for the production of shoes, so that the labor of a group of men with the proper implements could turn out about as many pairs of shoes in one state as in the other. Assume further that in the production of wheat Minnesota is twice as favorably situated as Massachusetts, so that the labor of a group of men could raise twice as

many bushels in the one state as in the other. Let work be the unit of measurement in the comparison; it may be the work of one man or of a group of men, it may be work for a day or for a year. Then using letters in algebraic form, we might state the situation thus: —

A unit of work produces —

in Massachusetts	in Minnesota
x shoes	x shoes
y wheat	$2y$ wheat

Now if Minnesota trades wheat for the shoes of Massachusetts, the advantage which either state will find in the transaction will depend entirely on the terms of the trade. The terms may be conveniently expressed in the form of an equation, and three such equations are here suggested for study: —

(1) x shoes of Massachusetts = y wheat of Minnesota
(2) x shoes of Massachusetts = $2y$ wheat of Minnesota
(3) x shoes of Massachusetts = $1\frac{1}{2}y$ wheat of Minnesota

If the first equation be the terms of the trade, Minnesota would have all the gain and Massachusetts would gain nothing. The second equation would reverse the situation, giving Massachusetts all the gain and Minnesota no advantage whatever. The third equation would divide the gain between the two, as must necessarily be done in all normal trades. Just where the gain will be divided depends much on the shrewdness of the parties in a single transaction; but in the long run and in the trade between great regions the division is made on the familiar principle of demand and supply as worked

out in the study of market price (see § 31). The demand for shoes, represented in this illustration by Minnesota, must equal the supply which is here represented by Massachusetts ; similarly the demand for wheat and the supply of wheat must equal each other. Another way to state it, still clinging to the illustration, would be to say that the number of times Minnesota wishes to trade wheat for shoes must equal the number of times Massachusetts wishes to trade shoes for wheat. These results would be brought about by properly adjusting the terms of trade.

The terms of trade are adjusted, as has already been shown in this chapter, by the flow of money from one region to the other. In this illustration it might be assumed that at the outset the amount of money in the two states was such that they had the same general level of prices and wages ; a day's work in either was worth a dollar, and x shoes were worth a dollar. Wheat would be an exception to the general level of prices ; it would be worth a dollar in Massachusetts and only fifty cents in Minnesota. Massachusetts would therefore buy wheat of Minnesota and pay for it by sending money. The amount of money would be thus decreased in Massachusetts and increased in Minnesota ; prices and wages would be lowered in Massachusetts and raised in Minnesota. The situation might become like this : —

	Massachusetts	Minnesota
Day's work . . .	$.80	$1.20
x shoes	.80	1.20
y wheat	.80	.60

It would now be to the advantage of Minnesota to buy shoes of Massachusetts rather than make them at home, paying for them by raising a surplus of wheat to send to Massachusetts.

This illustration is of course very arbitrary and artificial, but its usefulness is in presenting in comprehensible form the principle which controls the volume of buying and selling between every region on the face of the earth and every other region. In the course of actual business this principle is overlaid by a thousand modifying circumstances, so that only glimpses of it can be seen in concrete form.

Required Work

2. If the unit in the illustration about Massachusetts and Minnesota is a day's work, what part of a day's work would each state gain if the trade is on the terms of the first equation? Of the second equation? Of the third equation?

3. On the basis of money prices assumed on the preceding page, what would be the gain in money to each state if Minnesota were to send 1000 y wheat to Massachusetts and take pay in shoes?

4. Modify your work on the third equation in exercise 2 above by supposing that $\frac{1}{4}y$ wheat must be taken to pay the freight on x shoes and y wheat between the two states.

For Discussion

5. Because Minnesota could make shoes as well as Massachusetts, would it therefore be necessary that Minnesota would find it profitable to do so?

6. A physician has the ability to hoe his own garden better and in less time than any one whom he could hire

to do it, yet he finds that it is money in his own pocket to hire the hoeing done. Explain.

7. Why should the United States import leather goods from Germany when there is no reason why our own laborers could not make them just as well?

8. Trace the changes that would take place in our industries if it should be found profitable to give up the manufacture of silk in this country and import it from China. What would become of the people who formerly made the silk?

9. What modification would be introduced into the illustration of trade in wheat and shoes, if an import duty were imposed on all wheat brought into Massachusetts? On all shoes brought into Minnesota?

Optional Work

10. Make original illustrations like those in this section.

11. References: B., 339–51; L., 83–101; W., 89–111; M. II., 126–49, 181–4; L. M., 377–421; N., 278–300.

NOTE.

The foregoing chapter is based on what is termed the quantity theory of money. The student should know, however, that prices and the flow of money are affected by other things than the quantity of money. One of these is rapidity of circulation. The more rapidly money passes from hand to hand, or the shorter the time a piece of money is kept, on the average, before it is spent, the greater the volume of business that can be transacted with a given amount of money at a given level of prices.

Another factor is the use of the numerous credit instruments to do the work of money. For example, France has about twice as much money in circulation per capita as England, yet England probably sees more goods exchanged per capita than France, and England certainly has a higher level of prices than France. The chief explanation of this is that the business man

in France keeps his money in a safe, paying and receiving actual coin or bank notes in his transactions, while the business man in England keeps his money in a bank (which puts it back into circulation again by loaning it), paying and receiving payment in checks. It is well recognized that changes in the volume of credit profoundly affect prices, and act more noticeably than changes in the quantity of money.

Then money often flows from one financial center to another to secure a higher rate of interest; when the banks in New York are full of money, the rate of interest will be low, and money will be sent away to Chicago or London, where it can be loaned or invested at higher rates. In the long run, however, the rate of interest and the quantity of money are quite independent of each other.

Again, in the foregoing chapter, it is assumed that the amount of business done — the quantity of goods exchanged — remains the same. This is never exactly true. Many things operate to keep the volume of business in constant fluctuation, and a change in the amount of money in circulation is itself one of them. An increase in the amount of money stimulates business, and a decrease depresses it, though these effects tend to disappear in time.

Finally, it is a commonplace fact that prices change very irregularly. Many prices remain unchanged for years. When a general change is in progress, some prices always lag behind other prices, and all prices lag behind changes in the quantity of money. A flow of money in one direction may for a time merely alter the reserves of banks, with no change in the amount of money in circulation or of bank credit in use, and therefore with no change in prices.

On the other hand, the quantity of money may change in other ways than by the flow from one country to another. The production of the precious metals may vary; a larger or smaller proportion of them may be used for other purposes than as money; the volume of paper money may undergo some change. In fact, when it comes to a close discussion, it is necessary to discriminate carefully between standard money, token coins, stock of precious metals not used as money, paper money, and the numerous other forms of credit used as money.

This principle that the equilibrium between the sales and purchases of any city, state, or country is maintained by the

adjustment of prices through the flow of money, though as fundamental in commerce as gravitation is in the movements of planets, is obscured by so many things that its actual operation can be seen only dimly, and predictions founded upon it must be made with caution.

The quantity theory was held by economists from the time of Ricardo, with little reservation and few additions. Recently, however, it has been subjected to much criticism. The most pointed discussions are found in the periodicals: *Quarterly Journal of Economics*, October, 1893, and July, 1895; *Journal of Political Economy*, March, 1895, and March, 1896; *Annals of the American Academy of Political and Social Science*, March, 1897, and September, 1900. Schoenhof's "Money and Prices" is an elaborate criticism of the theory in the light of history; the writings of Farrer and Giffen introduce moderate qualifications. Other references to the large literature on this subject are found in the periodicals just mentioned.

CHAPTER X.

PRACTICAL DEVICES FOR PROMOTING OR REGULATING COMMERCE

§ 44. Introduction

1. Suggest possible ways in which the retail stores in a village could be made more profitable to their owners and at the same time more useful to the community. How could these possible improvements be realized?

It is natural that a study of this kind should terminate in the application of what has been learned to some of the practical problems of business. But many difficulties and dangers beset the attempt at such an application. Practical problems are always more difficult of exact solution than theoretical ones. Even an intelligent solution can be made only by one who is familiar with the many circumstances that surround the particular situation. Absolute certainty is rarely possible. Well-founded differences of opinion are therefore certain, and it is necessary to approach these problems with great respect for the opinions of others and a readiness to modify our own opinions when new views are brought to our attention.

This chapter is a mere outline of some of these problems, and not in any sense a solution of them. The student must find his own arguments and the

facts to support them. The discussion of the village stores may have disclosed the fact that profitable commerce must rest mainly on the industry, intelligence, and honesty of the members of a community. The two persons in a trade must have goods to exchange ; they must know how to find each other, and it is better if they are willing to deal fairly and squarely. The most that can be done for them is to make it a little more convenient to fulfill these conditions. All devices therefore, when really useful, merely give the freer play to individual enterprise.

These useful devices may be provided or applied by various agencies : —

(*a*) They may be provided by private enterprise, and paid for by the traders who reap the benefit. For example, a trader desires to know the market price; he may have it sent to him by subscribing for a newspaper or trade journal. Any service will be furnished by private enterprise if it is possible to impose a charge for it on the people benefited.

(*b*) Voluntary associations, such as boards of trade, chambers of commerce, and the organizations of merchants in different lines of trade, often do for their members or for the entire community what no individual could do for himself or hire done for him. In earlier times such organizations maintained armies and navies, carried on wars, and governed the countries with which they traded. This might be called coöperative private enterprise.

(*c*) The government may apply the devices, either at the expense of the entire people, or for a fee charged those supposed to be benefited.

For Discussion

2. When the aids to commerce can be applied by any one of these three agencies, which should be preferred? Give reasons, and if possible support them by facts.

§ 45. Security of Person and Property

1. What hindrances would there be to commerce in a country of savages? In China? In Turkey?

Commerce presumes the accumulation of considerable quantities of goods in the hands of merchants. These goods must often be exposed to public view or sent to distant places. The owner must often commit them to the care of others, perhaps even to persons whom he has never seen or of whom he has never heard. When goods are sold, there must be a certainty that payment will be received for them.

The numerous dangers to be guarded against or kinds of security desired may be embraced in five groups: —

(*a*) The danger against which merchants earliest sought protection and from which no devices have ever been able to free them entirely is that of robbery. Either the theft of goods or violence to the persons in charge of the goods is a serious discouragement to commerce. Piracy, or robbery on the seas, was long the bane of commerce, and has not yet entirely disappeared. To provide the required security, there is maintained a great array of warships, soldiers, policemen, watchmen, detectives, burglar alarms, safes, bars, and locks.

(*b*) There must be good government. It must not only restrain robbers, but itself refrain from acts of robbery. Taxation must be light, regular, and just. Corporations, especially, are exposed to spoliation by governments, as they exist only by law.

(*c*) War is disastrous to commerce in more ways than one. Even the danger of war has an unfavorable effect. Hence a country should have enduring peace if it is to have commercial development. The commercial supremacy of England is largely due to this.

(*d*) There must be protection against such disasters as fire and shipwreck. Not only must means be taken to prevent them, but also the loss of property when they do occur must be made good to the owners. For this latter purpose insurance is provided. Insurance against fire and shipwreck has long been in use; insurance against other forms of disaster is now in use and is being extended. The buying and selling of futures (see § 34) is partly a form of insurance.

(*e*) There must be certainty that people will do what they have agreed to do. Trade between distant places is especially dependent upon the certainty that the man at the other end of the line will fulfill his promises exactly. One reason why the Chinese are so successful as merchants is that they perform their oral contracts. All the great commercial peoples, such as the English, the Dutch, and the Jews, have possessed a high degree of business integrity. Then, too, all great enterprises require the employment of a multitude of subordinates, whose

honesty and faithfulness must be relied on; corporations must do all of their work through employees. The weakness of human nature in these respects must be supplemented by the certainty of punishment for those who violate the confidence reposed in them; the performance of contracts must be enforced when necessary by some superior authority.

For Discussion

2. By which of the three agencies mentioned in the preceding section is each of these needs of commerce supplied?

3. Could it be supplied by either of the other agencies?

4. In what respects and by what means could the existing system be improved?

§ 46. Information

1. Is it desirable that all persons engaged in commercial pursuits be able to read and write? What other general information should they possess?

2. How does the farmer or manufacturer know what price to expect for what he has to sell? How does the buyer know what price he ought to offer?

Commerce is an exceedingly intricate matter. It requires a vast amount of information, much of which must be constantly renewed.

Considerable general education is desirable in a large proportion of the people who have anything to do with commerce, and even in the mass of the people who are engaged in other pursuits. Schools, therefore, promote commerce. Technical

education to train skilled workers, especially for manufacturing, has already been mentioned; its importance is not yet fully realized. Technical education for commercial pursuits has existed for some time in European countries. In this country schools have long existed under various names, offering courses, a few months in length, designed to train for business life. Very recently several schools have started, offering extended commercial courses similar to the European schools.

The diffusion of information about current conditions affecting commerce is elaborately organized. Publications — daily, weekly, monthly, annual and occasional, — relating to every conceivable line of trade exist in great numbers. The "ticker" gives information hourly or oftener. The things on which information is wanted may be mentioned briefly: 1. Prices, more than anything else. 2. Prospects of production; probable quality of goods and quantity of each. 3. Condition of the markets; goods on hand, receipts, sales; where to buy or sell. 4. Foreign markets, especially the peculiarities there and the possibilities of new trade connections. 5. The business standing of customers must be known, to avoid dealing with people who are not trustworthy.

Optional Work

3. What is a *ticker?*
4. Give an account of some trade publication.
5. What sorts of information are given about prices in the newspapers?

6. Study the purpose and methods of the commercial agency of Bradstreet or Dun.

7. What other means are employed for learning the business standing of customers?

8. Study the consular service of the United States.

9. Interview some foreign consul resident in the United States about the trade of his country, and what he is expected to do to promote it. See Appendix.

10. Study the number, purpose, and scope of the business colleges such as exist in all the large cities of the United States. See Report of the U. S. Commissioner of Education.

11. Get information from a recent catalogue about one of the schools of commerce in the United States. See Appendix.

12. Get information about the commercial schools of Europe. See publications mentioned in the Appendix.

§ 47. Providing Facilities

1. If wagon roads were not provided by the government, would they be provided by private enterprise? Have you ever known of roads or bridges that were maintained by private persons or corporations for a profit?

2. The merchants of a certain city contribute money to pay for occasional free excursions by steamboat to their city from neighboring villages. Why should they do this? Would it be proper, if the law permitted, to pay for such excursions out of the city's taxes?

Numerous facilities are required for the convenience of business in general and commerce in particular. Some of these it is often thought proper to provide at public expense or under public management, even though they would otherwise be pro-

vided under private management. They have to do chiefly with transportation and communication.

The most necessary facilities are the following: —

(*a*) Natural waterways require improvements such as lighthouses, buoys, the dredging of harbors, clearing or deepening the channels of rivers, and wharves. Artificial waterways or canals may sometimes be constructed to great advantage.

(*b*) Lines of steamships are encouraged by the giving of aid aside from the income they earn by carrying freight and passengers.

(*c*) Streets and roads for pedestrians and vehicles are constructed. Where the population is sufficiently dense, street cars are operated.

(*d*) The transportation of persons and goods over long distances on land is now done in all well-developed countries almost exclusively by railroads.

(*e*) The modern facilities for communication over long distances are (1) the post-office, (2) telegraph, (3) telephone, (4) and cable.

(*f*) Places are needed in which dealers can meet for the transaction of business. (1) Nearly every large city has a building called the market, in which garden produce and other goods are sold, often by the producers themselves. (2) Speculators and others who trade in goods of certain kinds on a large scale meet in places usually called exchanges. (3) Nearly every large hotel has a room in which traveling salesmen can exhibit their goods to customers. (4) Boards of trade, chambers of commerce, commercial clubs, and other associations frequently have buildings in which their members and friends can gather for a great variety of purposes.

For Discussion

3. By which of the three agencies mentioned in § 44 is each of these facilities usually provided?

Optional Work

4. Investigate the question of private *vs.* public ownership of some of the facilities for transportation or communication.

5. Why should the government of a city maintain a market?

6. Investigate the arguments for and against steamship subsidies. See Reports of the Commissioner of Navigation; periodicals during the years 1900 and 1901, and the Congressional Record of the 56th Congress.

§ 48. Bounties on Production or Exportation

1. A furniture factory in a certain town was not a profitable business and there was no prospect that it ever would become profitable; yet the people of the town were urged to contribute money to make up its losses and keep it running. Why should they do this?

2. The people of Germany, as we have already noted (§ 19), are taxed to pay part of the cost of raising sugar, so that it can be exported and sold in foreign markets at a low price. Why should the German government do this?

The first question above represents a kind of device to promote local business that is often resorted to. It is usually assumed that anything which brings to the town people who will spend money there, is beneficial and should be maintained by some form of bounty if necessary. The arguments used to support this assumption need careful analysis.

The paying of a bounty on exports is justified by much the same reasoning. Exports are thought to bring money into the country and so help business. Therefore they should be encouraged even at the expense of the taxpayers. On the other side, the countries receiving such exports are thought to be injured thereby. The Congress of the United States (see Sec. 5 of the Tariff Act of 1897) took this view when it adopted a measure designed to shut out the sugar of Germany, part of the cost of which had been paid by the German taxpayers.

Back of all this is the idea that there is too much wealth; that the people of the world produce more than they care to use; that the occasional outright destruction of some wealth is a benefit; that the most useful people to business are those who spend money lavishly; that others may profitably be trapped into buying or compelled to contribute toward a bounty or bonus for some business. The references below treat of this point exclusively.

For Discussion

3. Suppose a new factory is brought to a town by a bonus, for the sake of the addition it will make to business. To whom will the benefits come? Will they be permanent or temporary? Can the rate of wages and the profits of merchants in one town be kept long at a point higher than they are in other towns immediately around? See § 32.

Optional Work

4. State the provisions of the Tariff Act of 1890 in regard to the bounty on sugar.

5. State the provisions of the Tariff Act of 1897 designed to exclude sugar on which a bounty had been paid.

6. References: W., 291; L., 106–7; N., 420–4; E., 96.

§ 49. Protective Duties

1. Only a part of the flour used by the people of Wisconsin is made from wheat grown in their own state; much of it is made from wheat raised in Minnesota and the Dakotas. No doubt there is land enough in Wisconsin, now put to little or no use, to furnish bread for all its people. Would it be beneficial to Wisconsin to prevent the importation of wheat or flour and so stimulate home production? Would it benefit Minnesota and the Dakotas?

2. If the exports of a country were stopped, how would the imports be affected? Trace the chain of sequences. If the imports be checked, how will the exports be affected? In exercise 1 above, how would the advantages and disadvantages be divided between Wisconsin and the other states?

Arguments for protection are numerous, but there are only a few leading ones; the others are mainly elaborations or variations of these. The more important will be stated here in four groups: —

(*a*) In a young and growing country all the conditions may be favorable for carrying on an industry; and yet that industry may not be started because little attention has been given to it; no workers have been trained for it, suitable machinery and other appliances have not been provided, the business has not been organized, — in fine, because of inertia. Excluding the product of foreign countries by a tar-

iff, and making it necessary to start the production at home, may raise prices for a time and so put a burden on the consumer. But after a time the new industry will get started; capital and skilled laborers will migrate from where the industry was formerly carried on to the protected country, as was the case in the tin-plate business after the United States imposed a duty in 1890; the industry can then be carried on profitably in competition with the outside world, and protection for it will no longer be necessary. This is usually known as the *young industry* argument, though it has many variations under other names.

(*b*) The argument for *industrial independence* is political and social rather than economic. In time of war a country may be cut off from trade with the rest of the world; it would then derive a great advantage from having all possible varieties of industry in operation within its borders, especially those that supply the military forces. Furthermore, independence means unity, and industrial unity would promote political and social unity; commerce brings people together and makes them acquainted more than anything else, and protection fosters this acquaintance between people in different sections of the country, rather than with foreign countries.

(*c*) In the United States protectionists place their main reliance on what is called the *pauper labor* argument. Wages in the United States are higher than in the foreign countries with which we trade; therefore, if we had free trade, many kinds of goods produced by the poorly paid labor abroad would be sent here and sold at such low prices that our own

laborers must either quit work entirely or accept a reduction of wages. It is contended further that not only laborers but also manufacturers, merchants, and the employing class generally need protection against these cheap foreign goods; also that farmers and others who cannot be protected, because their products are exported and not imported, get benefit through the increased demand for their products at home by the protected classes. This is the *home market* argument.

(*d*) Another argument is that protection can increase production by more fully *utilizing the energies* of the country. As long as there are any undeveloped resources and any unemployed laborers, the tariff should exclude foreign goods that would compete with them.

The young industry argument is rarely questioned on principle, granted that the facts to which the argument applies exist. Even the opponents of protection admit that here it has some real advantage. The second argument also is valid as far as it goes; the only question is regarding the importance that should be attached to it. The third and fourth arguments differ little from each other in principle; they require careful analysis in the light of what was learned in the preceding chapter.

Some disadvantages are necessarily connected with protection. One of the most serious is that it leads to a vast amount of lobbying by representatives of the various industries. It has been shown in the preceding chapter that the imposition of new duties tends to bring money into the country and raise

prices. This makes it more difficult for the industries not protected to meet foreign competition in our home markets. Therefore protection to one industry will, in time, necessitate protection to other industries, and so on until a great system of protective duties grows up. The readjustment of rates of duty to suit the various industries will continue without end as long as the principle of protection is accepted.

Another objection has become prominent in recent years. Many industries in the United States, and in other countries as well, have come under the control of monopolies so as effectually to exclude competition in any one country. A high tariff helps these monopolies by shutting out the competition of foreign producers.

For Discussion

3. Present the *pros* and *cons* for each of the above arguments: first, its validity or importance as a general principle; second, its application to the United States at the present time.

4. Might the farmers of England, France, and Germany claim protection against the cheap grain and meat of America?

Optional Work

5. The tariff history of the United States may be taken up in the following divisions: Before the War of 1812; from the War of 1812 till about 1840; from 1840 to 1860; from 1860 to 1885; from 1885 to the present time.

6. Study the tariff history of England from 1785 to the present time, especially the free-trade movement.

7. Study the present tariff system of France, Germany, or some other country.

8. References: A. S., 219–32; M. II., 532–9; L. M., 450–6, 605–28; L., 289–302; W., 388–402; E., 280–5; H., 422–40. A strong presentation of the protectionist side, with special reference to young industries, is given by Patten, "The Economic Basis of Protection," published by Lippincott. The opposing side is clearly presented by Mongredien, "Free Trade in England," and by Bastiat, "Sophisms of Protection"; both are small books and are published by Putnam. Bastable, "The Commerce of Nations," Methuen and Co., London, discusses thoroughly and fairly the protectionist arguments and gives a history of the policy in the leading countries. Taussig, "Tariff History of the United States," is the best for the topic it covers. The same author has edited a volume, "State Papers and Speeches on the Tariff," containing the best arguments made by statesmen in the United States on both sides of the question. Special Consular Reports, Vol. XVI., gives in detail the tariffs of foreign countries.

APPENDIX

APPENDIX

I. THE COST OF A DINNER

FROM THE *OUTLOOK*, MARCH 13, 1897

Recently a gentleman who is fond of arithmetic made up his mind that he would find out how much a dinner really cost. This gentleman asked how much a simple dinner that he was eating cost, and he was told seventy-five cents. He contradicted this, and then made out the following statement about the cost of that dinner: The pepper, he said, came from ten thousand miles away. It grew on a little bush about eight feet high, which must have had a growth of at least five years. The pepper was picked green; it had to be dried in the sun, and this meant employing women. It took one ship and a thousand miles of railroad to bring the pepper to the United States. The tea on the table came from China, and the coffee from South America. The codfish had to be brought from Maine. Men had to be employed to catch the fish; other men and women were employed in drying, packing, and boxing it, and it, too, had to make a long railroad journey. The flour of which the bread was made was grown in Dakota; some one owned the land, and that meant the investing of capital; and then he had also to pay wages to workingmen. The flour had to be ground, and the building of the mill and the plant,

or machinery, meant more money invested. The millers had to be paid; coopers had to be paid for making the barrels; and, of course, the wood of which the barrels were made had to be cut and sawed and shaped, and this meant the employing of more men. Then the flour had to be shipped over the railroad and handled again by cartmen before it came into the house. The salt came from the Indian Reservation in the northwestern part of New York State. The canned peaches came from California, and they too represented the employment of capital and labor. The spices in the cake came from the Spice Islands in the Indian Archipelago. After the gentleman had pointed out what the dinner really cost, he asked what on the table could be raised within the limits of the county where they were living. The answer was: only the corn bread, the butter, and buttermilk, and it was decided that the family could not live on those alone. The gentleman estimated that that little dinner represented directly, or indirectly, the employment of five hundred millions of dollars of capital and of five millions of men.

II. FOREIGN CONSULS IN THE UNITED STATES

There are four principal ranks of consular officers: consul-general, consul, vice-consul, and consular agent; some countries also appoint commercial agents.

There are three ways in which a consul may obtain compensation for his work: he may keep for his own use the fees paid him for official acts; he may receive a salary from his home government, in which case he turns over the fees to his government; and he may engage in private business. With regard to compensation, the United

States divides its consuls in other countries into three classes: (1) Those who receive a fixed salary and are not allowed to engage in private business, being required to devote all their time to their official duties. In this class there are thirty-nine consuls-general, two hundred and four consuls, and eight commercial agents. These reside in the foreign cities with which the United States has large trade. (2) Those who receive salaries and are also permitted to engage in business. They number eleven, and are all consuls. (3) Those who receive fees and may also engage in business. Forty of this class are consuls, and fifteen are commercial agents. Foreign consuls residing in the United States are doubtless classified in a similar way.

These consuls are not always natives, or even citizens or subjects, of the countries they represent. A citizen of the United States might serve as consul for a foreign country, or a foreigner might serve as consul for some other country than his own. Such cases, however, are exceptional.

A foreign consul, on coming to the United States, must present his credentials at our Department of State. He will then be officially recognized; evidence of his recognition is given him in a document called an exequatur. For information about the privileges of consuls, see works on international law. Their duties depend much on the special requirements made by their home countries.

The following table shows the number of consular officers in the United States for each foreign country, and the cities in which they reside. These officers may be assisted by clerks or secretaries, who are not included in the table.

The data are taken from the Register of the Department of State, corrected to January 17, 1901.

	Argentine Republic.	Austria-Hungary.	Belgium.	Bolivia.	Brazil.	Chile.	China.	Colombia.	Costa Rica.	Denmark.	Dominican Republic.	Ecuador.	France.	Germany.	Great Britain.	Greece.	Guatemala.
1. Albany, N.Y.															1		
2. Alexandria, Va.	1									1			1		1		
3. Apalachicola, Fla.															1		
4. Astoria, Oreg.			1														
5. Atlanta, Ga.																	
6. Baltimore, Md.	1	1			1	1			1	1	1		1	1	2		1
7. Bangor, Me.	1																
8. Beaufort, S.C.															1		
9. Biloxi, Miss.															1		
10. Birmingham, Ala.													1				
11. Boise City, Ida.										1							
12. Boston, Mass.	1	1	1			1		1	1	1	1	1	1	1	2	1	1
13. Brownsville, Tex.													1				
14. Brunswick, Ga.	1				1										1		
15. Buffalo, N.Y.																	
16. Calais, Me.					1												
17. Calumet, Mich.																	
18. Charleston, S.C.		1	1		1					1		1		1	1		
19. Chicago, Ill.	1	1	1			1		1	1	2	1	1	1	2	3	1	1
20. Cincinnati, O.									1			1	1	1			
21. Cleveland, O.										1							
22. Corpus Christi, Tex.																	
23. Dallas, Tex.													1				
24. Darien, Ga.														1	1		
25. Denver, Colo.			1						1				1		1		
26. Des Moines, Ia.																	

	Haiti.	Honduras.	Italy.	Japan.	Liberia.	Mexico.	Monaco.	Netherlands.	Nicaragua.	Orange Free State.	Paraguay.	Persia.	Peru.	Portugal.	Russia.	Salvador.	Siam.	Spain.	Sweden and Norway.	Switzerland.	Turkey.	Uruguay.	Venezuela.
1			1																				
2																							
3																			1			1	
4																							
5																							
6		1	1		1	1		1	1				1	1	1			1	1			2	
7	1		1											1								1	
8																			1				
9																							
10																							
11																							
12	1		1		1	2		1	1				1	1	1				1		1	1	
13						1												1					
14														1				1	1			1	
15			1																				
16																						1	
17			1																				
18			1		1										1			1	1			1	
19	1	1	1	1		1		1	1				1	1	1			1	1	1	1	1	
20								1												1			1
21			1																1				
22						1																	
23																							
24																			1				
25			1			1													1	1			
26																							1

	Argentine Republic.	Austria-Hungary.	Belgium.	Bolivia.	Brazil.	Chile.	China.	Colombia.	Costa Rica.	Denmark.	Dominican Republic.	Ecuador.	France.	Germany.	Great Britain.	Greece.	Guatemala.
27. Detroit, Mich.			1					1		1			1				
28. Eagle Pass, Tex.																	
29. El Paso, Tex.													1				
30. Fargo, N. Dak.										1							
31. Fernandina, Fla.	1														1		
32. Galveston, Tex.	1	1	1						1	1			1	1	1		
33. Grand Forks, N. Dak.																	
34. Grand Haven, Mich.																	
35. Grand Rapids, Mich.																	
36. Green Bay, Wis.			1														
37. Hazelton, Penn.		1															
38. Indianapolis, Ind.																	
39. Jacksonville, Fla.											1				1		
40. Jersey City, N.J.																	
41. Kansas City, Mo.				1						1			1		1		1
42. Key West, Fla.															1		
43. Laredo, Tex.																	
44. Little Rock, Ark.										1							
45. Los Angeles, Cal.			1									1	1		1		
46. Louisville, Ky.										1			1				1
47. Lovelocke, Nev.										1							
48. Lowell, Mass.																1	
49. Madison, Wis.																	
50. Memphis, Tenn.																	
51. Milwaukee, Wis.		1															
52. Mobile, Ala.	2	1	1					1	1	1			1	1	1		1

	Haiti.	Honduras.	Italy.	Japan.	Liberia.	Mexico.	Monaco.	Netherlands.	Nicaragua.	Orange Free State.	Paraguay.	Persia.	Peru.	Portugal.	Russia.	Salvador.	Siam.	Spain.	Sweden and Norway.	Switzerland.	Turkey.	Uruguay.	Venezuela.
27		2	1						2														1
28						1																	
29						2																	
30																							
31																		1					
32		1	1	1	1	1		1	1						1			1	1	1		1	1
33																			1				
34																			1				
35								1															
36																							
37																							
38											1												
39																							
40					1																		1
41		1	1			2			1														
42													1						1				
43						1																	
44																							
45		1	1						1														1
46		1							1											1			
47																							
48																							
49																			1				
50			1																				
51																							
52	1	1	1		1	1		1	1				1		1			1	1			1	

	Argentine Republic.	Austria-Hungary.	Belgium.	Bolivia.	Brazil.	Chile.	China.	Colombia.	Costa Rica.	Denmark.	Dominican Republic.	Ecuador.	France.	Germany.	Great Britain.	Greece.	Guatemala.
53. Naco, Ariz.																	
54. Nashville, Tenn.																1	
55. New Haven, Conn.																	
56. New Orleans, La.	1	1	2		1			1	2	1			1	1	2		1
57. Newport News, Va.										1					1		
58. New York City, N.Y.	2	1	1	1	2	1	1	2	2	1	3	2	1	3	4	1	1
59. Nogales, Ariz.																	
60. Norfolk, Va.	1		1		1			1	1	1		1		1	1	1	
61. Omaha, Neb.										1					1		
62. Pascagoula, Miss.	1				1										1		
63. Pensacola, Fla.	2	1			1					1				1	1		1
64. Philadelphia, Penn.	1	1	2	1	1	1		1	2	1	1	1	1	1	2	1	1
65. Phœnix, Ariz.																	
66. Pittsburg, Penn.		1	1														
67. Portland, Me.	1												1		1		
68. Portland, Ore.						1			1	1			1	1	2		
69. Port Tampa, Fla.															1		
70. Port Townsend, Wash.						1									1		
71. Providence, R.I.															1		
72. Punta Gorda, Fla.															1		
73. Racine, Wis.										1							
74. Richmond, Va.	1	1	1		1									1	1		
75. Rio Grand City, Tex.																	
76. Sabine Pass, Tex.																	
77. Salt Lake City, Utah.										1							
78. San Antonio, Tex.													1				

	Haiti.	Honduras.	Italy.	Japan.	Liberia.	Mexico.	Monaco.	Netherlands.	Nicaragua.	Orange Free State.	Paraguay.	Persia.	Peru.	Portugal.	Russia.	Salvador.	Siam.	Spain.	Sweden and Norway.	Switzerland.	Turkey.	Uruguay.	Venezuela.
53						1																	
54																							
55			1																				
56		3	1	1	1	1		1	1				1	1	1			2	1	1		1	
57									1					1									
58	2	2	3	1	2	2	1	2	2	1	2	1	1	2	2	1	1	2	2	2		2	2
59						1																	
60			1			1		1	1					1				1	1			1	1
61																			1				
62						1												1					
63			1			2		1						1	1			1	1			1	1
64		1	1	1	1	2		1	1		2		1	1	1			1	1	1		1	2
65						1																	
66			1																				
67																			1			1	
68				1		1									1				1	1			
69																							
70																			1				
71			1																				
72																							
73																							
74																						1	
75						1																	
76						1									1								
77																			1				
78						1																	

	Argentine Republic.	Austria-Hungary.	Belgium.	Bolivia.	Brazil.	Chile.	China.	Colombia.	Costa Rica.	Denmark.	Dominican Republic.	Ecuador.	France.	Germany.	Great Britain.	Greece.	Guatemala.
79. San Diego, Cal.															1		1
80. San Francisco, Cal.	1	1	1	1		2	1	1	1	1		1	1	2	2	1	1
81. San José, Cal.													1				
82. San Pedro, Cal.																	
83. Savannah, Ga.	1	1	1		1	1				1			1	1	1		
84. Scranton, Miss.										1							
85. Seattle, Wash.			1							1			1		1		1
86. Shieldsboro, Miss.																	
87. Sioux City, Ia.																	
88. St. Augustine, Fla.																	
89. St. Louis, Mo.	1	1			1			1	1	1			1	1	1	1	1
90. Story City, Ia.										1							
91. St. Paul, Minn.										1			1		1		
92. Tacoma, Wash.						1							1	1	1		
93. Tampa, Fla.													1				
94. Tucson, Ariz.																	
95. Vicksburg, Miss.																	
96. Washington, D.C.														1			
97. Wilmington, N.C.	1									1	1			1	1		

	Haiti.	Honduras.	Italy.	Japan.	Liberia.	Mexico.	Monaco.	Netherlands.	Nicaragua.	Orange Free State.	Paraguay.	Persia.	Peru.	Portugal.	Russia.	Salvador.	Siam.	Spain.	Sweden and Norway.	Switzerland.	Turkey.	Uruguay.	Venezuela.
79		1				1			1										1				
80		1	1	1		1		1	1		1		1	2	2	1		2	1	1	1	1	1
81																							
82																			1				
83	1		1					1						1				1	1			1	
84			1																			1	
85		1	1						1										1				
86								1															
87																			1				
88																						1	
89		1	1		1	2		2	1									1	1	1			
90																							
91								1											1	1			1
92				1																			
93																		1					
94						1																	
95			1																				
96					1						1		1						1		1		
97	1																		1				

III. THE STUDY OF COMMERCE IN SCHOOLS

Schools that train pupils for commercial life have existed in Europe for many years. France, Belgium, Germany, Austria, and Italy each have numerous schools that exist for this purpose alone. There are elementary schools, for pupils from twelve to fifteen years of age, that train for business life in general, much as do the business schools to be found in every large city in the United States. Besides, there are high schools whose purpose is to train young men for distinctive commercial life, just as there are schools to train for all the professions, arts, and trades. In 1892 Austria had thirteen of these commercial high schools, containing three thousand pupils; Germany had fifty-five high schools with over five thousand pupils. In the other three countries the schools are not so numerous; the principal one in Belgium is at Antwerp, and in Italy at Venice; in France there are three in the city of Paris alone. England has done less in this direction than any of the five countries just named, but is now devoting much attention to the subject and will doubtless make progress in the near future.

In 1898 a school more advanced than any of these was opened at Leipsic in Saxony. The management and the financial burden are shared between the merchants of the city, the government of the city, the government of Saxony, and the University of Leipsic. Students are received who have had nine years of schooling, which means that their preparatory work must be equivalent to that of students entering the German universities. The course of study covers two years. At the outset, an instructor was appointed for each of the following departments: political economy, commercial and trade

politics, industrial politics, commercial and banking laws, introduction to the study of statistics, German colonial politics, geography and colonial politics of East German Africa, general and chemical technology, elementary insurance mathematics, countries and cities of central Europe, general history of modern times, introduction to the plastic arts, history of German literature, commercial and political arithmetic, bookkeeping, correspondence and office work, mechanical technology and textile industry, with excursions.

It should be noted that the foreign consuls sent out by the five Continental countries named are selected to a greater or less extent from the graduates of these commercial schools.

In the United States every large city contains one or more business schools carried on by private individuals for profit. The chief purpose of these is to prepare for purely clerical work, such as stenography, typewriting, and bookkeeping. But all the schools of better grade have commercial departments, giving instruction in such subjects as banking, exchange, and commercial law; commercial arithmetic is always included, commercial geography and political economy rarely. As these schools are supported solely by tuition fees and are carried on for profit, only those studies are offered which directly and immediately help to fit a pupil for a situation. The best institution of this kind is probably the Packard Business College in New York City. At one time the firm of Bryant & Stratton operated fifty business schools in the United States and Canada; the Packard school in New York was at first one of these, and Mr. Packard was a member of the firm.

In some cities the high schools have taken up the work of these business schools and enlarged upon it. Pitts-

burg began it in 1872, though there may have been earlier beginnings elsewhere. In 1898 the Central High School of Philadelphia inaugurated a department of commerce with a four years' course of study. The course for the year 1900–1901 is given on the following page.

Similar courses of two, three, or four years are given in the high schools of New York, Boston, New Haven, Washington, Detroit, Omaha, Milwaukee, and other cities. In many there is not a commercial course, but commercial studies may be substituted for other studies. To enable comparison to be made with the Philadelphia course, the following condensed statement is given of the course in the Omaha High School: —

First Year

German or Spanish; algebra; English; commercial arithmetic and rapid calculation.

Second Year

German or Spanish; geometry; English; penmanship and commercial spelling, first half-year; commercial geography, second half-year.

Third Year

German or Spanish; physics, chemistry, or biology; stenography; bookkeeping.

Fourth Year

German or Spanish; civics, first half-year; political economy, second half-year; history of commerce, transportation, etc., first half-year; commercial law, second half-year; practical business or stenography.

COMMERCIAL COURSE OF STUDY IN THE CENTRAL HIGH SCHOOL, PHILADELPHIA

The numeral after each study indicates the number of recitation hours per week

SUBJECT	FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
English.	Composition, classical literature in translation, American literature, 4.	History of English literature, composition, 3.	Readings from English literature, essay writing, 2.	Readings from literature, thesis writing, 3.
Foreign Language.	Elements of Latin and easy readings, 4.	German: grammar, reading, and conversation, 5.	German: reading, composition, and conversation, 3; Spanish or French, 4.	German: advanced reading, conversation, and correspondence, 3; Spanish or French, 3.
Mathematics.	Algebra, 5.	Advanced commercial arithmetic, mensuration and metric system, geometry and trigonometry, 3.		
History.	European History to 800 A.D., 3.	Modern European history, 3.	American history, 2.	Modern industrial and commercial history, 3.
Science.	Raw materials of commerce; animal, vegetable, and mineral products, 4.	Commercial geography, 2.	Physics and chemistry, 4.	Industrial chemistry, 2.
Economics and Political Science.	Philadelphia history, government and business interests; lectures and quizzes, 2.	Trade centers of the world; lectures, 1.	Political economy, 2.	Transportation, banking, and finance, 4; statistics, 1; study of government, chiefly of cities, 3.
Business Technique.	Business forms, penmanship, practice, 2.	Bookkeeping, 3; stenography, 2; typewriting, extra hours.	Mechanical drawing, 2; office practice and business methods, 3; stenography, 2; typewriting, extra hours.	Ethics of business, commercial law, 2.

The universities have now taken up the advanced study of commerce, and offer courses which a student can enter upon only after completing a high school or secondary course; most of these cover four years and lead to the bachelor's degree. In some cases this has been done by creating, within the university, a school or college independent of but coördinate with the usual college of arts and sciences. The Wharton School of Finance and Economy, founded in 1881 as a department of the University of Pennsylvania, was a start in this direction. The University of Chicago made the virtual beginning of this new phase of commercial education in July, 1898, when it decided on the establishment of its College of Commerce and Administration, though for the most part this new college was merely a new grouping of studies already given in other departments. A few weeks later the University of California, at Berkeley, created a College of Commerce, for which much new instruction was provided. A student in this college has a large number of electives to choose from, among them the Chinese and Japanese languages. About the same time Ohio State University, at Columbus, opened a course in commerce and administration. In 1900 the University of Pennsylvania, at Philadelphia, and the University of Wisconsin, at Madison, established commercial schools. Their courses of study are here submitted; the numerals indicate the number of recitations or lectures per week:—

COURSE OF STUDY OF THE SCHOOL OF COMMERCE, UNIVERSITY OF WISCONSIN, 1901–1902

FRESHMAN YEAR

First Semester: Economic geography, 4; German, French, or Spanish, 4; English, 3; trigonometry, 2; chemistry, 3; drill and gymnastics, 2.

Second Semester: American history, 4; economic history of England, 2; language continued, 4; English, 3; chemistry, 3; drill and gymnastics, 2.

Sophomore Year

First Semester: History of commerce, 2; mediæval history, 3; business methods and accounts, 2; language continued, 2; English, 2; physics, 5; drill and gymnastics, 2.

Second Semester: Business organization and management, 2; elementary economics, 3; modern history, 3; language continued, 2; physics, 5; elective, 2; drill and gymnastics, 2.

Junior Year

First Semester: Money and banking, 3; transportation, 2; generation and transmission of power, 3; language continued, 2; technical elective, 3; free electives, 5.

Second Semester: Commercial law, 3; transportation, 2; nineteenth century history, 3; language continued, 2; technical elective, 3; free electives, 5.

Senior Year

First Semester: Commercial law, 2; materials of commerce, 3; language continued, 2; thesis, 2; technical elective, 3; free electives, 6.

Second Semester: Same as first.

There are three groups of the technical electives: one preparatory to banking, one for the consular service, and one on the commerce of South America and the West Indies. On the materials of commerce two courses are offered between which the student may choose.

Course in Commerce and Industry, University of Pennsylvania, 1901–1902

Freshman Year

English composition, 2; English language, 1; mathematics, 2; or chemistry, 4; or practical economic problems, 2; accounting, 3; physical and economic geography, 2; constitutional law, 2; French, 3; German, 3; American history, 2.

Sophomore Year

English literature, 2; practical finance and foreign exchange, 2; business law, 1; theory and geography of commerce, 2; political economy, 2; legislative procedure, 1; public speaking, 1; German, 3; French, 3; European history, 3.

Junior Year

Economics, 2; American commerce, 2; money and banking, 2; commercial treaties, 1; corporation law, 1; commercial products, 1; English literature, 2; industrial history, 2; economic resources of Europe and United States, 2; recent changes in industry, 1; modern legislative problems, 2; field work — study of business methods, 2.

Senior Year

Finance, 2; European commerce, 2; colonial government, 2; economic resources of tropical countries, 2; causes of industrial supremacy, 2; English civilization, 2; international law, 2; race traits and distribution, 2; international trade and shipping, 1; inland trade and transportation, 1; commercial credits, 1.

The year 1900–1901 is notable for four other beginnings in the advanced study of commerce. New York University, in the city of New York, created its School of Commerce, Accounts, and Finance. The course covers two years, instead of four as do the others, and instruction is given only by evening lectures. The studies are strictly technical; even history and political economy are omitted; accounting and commercial law occupy three-fourths of the time. The University of Vermont, at Burlington, organized the Department of Commerce and Economics. Students may work in this department during their junior and senior years. The studies are varied, so that they give a broad rather than a technical education. Dartmouth College, at Hanover, organized the Amos Tuck School of Administration and Finance. The course covers two years, but three years of undergraduate work in college are required for admission. The study of commerce occupies a prominent place. The University of Michigan established a special course for higher commercial education; it may cover either two or three years, and is preceded by two years of undergraduate work. During this year Columbia University, in New York City, has been preparing a course in commerce that may be even more extended and thorough than any of the others. As this book goes to press, a bill is before the legislature of Illinois which, if passed, will enable the state university at Champaign to establish a school of commerce.

The best way to get information about any of these commercial schools is to write directly to the schools for catalogues. The student who wishes to investigate the subject broadly should consult the following works, to which the author of this volume acknowledges indebtedness in preparing the foregoing sketch: —

The Education of Business Men: a view of the Organization and Courses of Study in the Commercial High Schools of Europe. By Edmund J. James, Ph.D., professor in the University of Chicago.

Supplement to the Fifth Yearbook of the National Herbartian Society for 1899: Commercial Education; Training of Business Men as a Branch of Technical Instruction. By Cheesman A. Herrick, Ph.D., director of the course in commerce, Central High School, Philadelphia, Pa. Contains a bibliography. This pamphlet and the above are published by the University of Chicago.

Education in the United States: A series of monographs prepared for the United States exhibit at the Paris Exposition, 1900. Edited by Professor Nicholas Murray Butler, of Columbia University, and published by J. B. Lyon Co., Albany, New York. Volume II. contains a concise account of commercial education in the United States by Professor James.

Publications of the American Economic Association, Third Series, Vol. II., No. 1, published by Macmillan, contains some papers relating to higher commercial education, read at the meeting of the Association in December, 1900.

The Reports of the United States Commissioner of Education for several years back contain information on commercial education.

IV. BOND-VALUE TABLES

(These tables are prepared especially for use in connection with § 33. Mr. William R. Blair, teacher of mathematics in the State Normal School at Oshkosh, Wisconsin, devised the formula that was used in preparing the tables and made the fundamental computations.)

Let n equal the number of interest payments the bond promises, r the real or market rate of interest, and d the difference, between a single interest payment of the bond and the interest on its face value at market rate.

This difference recurring periodically becomes an annuity of which the present worth is $\frac{d[(1+r)^n - 1]}{(1+r)^n r}$. The numerical value of this quantity may be found by the use of logarithms, and is the premium of the bond when the bond rate exceeds the market rate, or the discount when the bond rate is less than the market rate.

The formula used by Mr. Montgomery Rollins, of Boston, to give the market value of a bond paying interest semi-annually, is as follows, i representing one-half of the interest at bond rate: —

$$\frac{i}{r} - \left\{ \frac{\frac{i}{r} - 100}{(1+r)^n} \right\}$$

In making use of these tables, first find the table for the period the bond has to run, then the column at the head of which is the rate of interest promised in the bond. The figures at any point in this column give the price of the bond, par value assumed to be $100, corresponding to the real rate of interest given at the left margin on the same horizontal line. In this way the price of the bond may be found when the real rate of interest is known, or the real rate of interest may be found when the price of the bond is known. This operation may be reversed; assuming a certain rate of real interest, what interest the bond must offer to make it sell at a given premium or discount may be found.

Tables for business use are much fuller than these. They give the information for periods progressing by half-yearly intervals from six months to thirty, forty, or sometimes fifty years, and for variations of one-eighth of one per cent in the real rate of interest. They also assume that the interest is paid semi-annually. The following tables are based on annual payments of interest, that they may be more easily understood and verified by the student. This decreases the premiums and discounts a fraction of one per cent of themselves.

ONE YEAR

1	Per cent per annum	Bond to run one year, paying interest annually at—								
		2	2½	3	3½	4	4½	5	6	7
Real or market rate of interest is at—	2½	99.51	100.00	100.49	100.97	101.95	102.43	103.41	103.41	104.38
	2¾	99.27	99.76	100.24	100.73	101.70	102.19	103.16	103.16	104.14
	3	99.05	99.51	100.00	100.49	100.97	101.46	101.94	102.91	103.88
	3¼	98.79	99.27	99.76	100.24	100.73	101.21	102.66	102.66	103.63
	3½	98.55	99.03	99.52	100.00	100.48	100.97	101.45	102.42	103.36
	3¾	98.32	98.80	99.28	99.76	100.24	100.72	101.20	102.17	103.13
	4	98.08	98.56	99.04	99.52	100.00	100.48	100.96	101.92	102.88
	4½	97.61	98.08	98.56	99.04	99.52	100.00	100.48	101.44	102.39
	5	97.14	97.62	98.10	98.57	99.05	99.52	100.00	100.95	101.90
	5½	96.68	97.15	97.63	98.10	98.58	99.05	99.53	100.47	101.42
	6	96.23	96.70	97.17	97.64	98.11	98.58	99.06	100.00	100.94
	7	95.34	95.80	96.26	96.73	97.20	97.66	98.13	99.07	100.00

FIVE YEARS

5	Per cent per annum	Bond to run five years, paying interest annually at—								
		2	2½	3	3½	4	4½	5	6	7
Real or market rate of interest is at—	2½	97.68	100.00	102.32	104.65	106.97	109.29	111.61	116.26	120.90
	2¾	96.54	98.85	101.15	103.46	105.78	108.07	110.39	115.00	119.62
	3	95.42	97.71	100.00	102.29	104.58	106.87	109.16	113.74	118.32
	3¼	94.32	96.59	98.86	101.14	103.41	105.68	107.96	112.50	117.09
	3½	93.23	95.48	97.74	100.00	102.26	104.52	106.77	111.29	115.80
	3¾	92.15	94.40	96.64	98.88	101.12	103.36	105.60	110.09	114.57
	4	91.10	93.32	95.55	97.77	100.00	102.23	104.45	108.90	113.35
	4½	89.02	91.22	93.41	95.61	97.80	100.00	102.20	106.59	110.98
	5	87.01	89.18	91.34	93.51	95.67	97.84	100.00	104.33	108.66
	5½	85.06	87.19	89.33	91.46	93.60	95.73	97.87	102.13	106.40
	6	83.15	85.26	87.36	89.47	91.58	93.68	95.79	100.00	104.21
	7	79.50	81.55	83.60	85.65	87.70	89.75	91.80	95.90	100.00

TEN YEARS

10	Per cent per annum	Bond to run ten years, paying interest annually at —								
		2	2½	3	3½	4	4½	5	6	7
Real or market rate of interest is at —	2½	95.62	100.00	104.38	108.75	113.13	117.51	121.88	130.63	139.39
	2¾	93.52	97.84	102.16	106.48	110.80	115.12	119.44	128.08	136.73
	3	91.47	95.75	100.00	104.26	108.53	112.79	117.06	125.59	134.12
	3¼	89.47	93.68	97.89	102.11	106.32	110.53	114.74	123.16	131.58
	3½	87.55	91.68	95.84	100.00	104.16	108.32	112.48	120.79	129.11
	3¾	85.64	89.74	93.84	97.95	102.05	106.16	110.27	118.48	126.69
	4	83.78	87.83	91.89	95.94	100.00	104.06	108.11	116.22	124.33
	4½	80.22	84.17	88.13	92.09	96.04	100.00	103.96	111.87	119.78
	5	76.83	80.90	84.56	88.42	92.28	96.14	100.00	107.72	115.44
	5½	73.62	77.39	81.16	84.93	88.69	92.46	96.23	103.77	111.31
	6	70.55	74.23	77.91	81.59	85.28	88.96	92.64	100.00	107.36
	7	64.88	68.39	71.90	75.42	78.93	82.44	85.95	92.98	100.00

FIFTEEN YEARS

15	Per cent per annum	Bond to run fifteen years, paying interest annually at —								
		2	2½	3	3½	4	4½	5	6	7
Real or market rate of interest is at —	2½	93.81	100.00	106.19	112.38	118.57	124.76	130.96	143.34	155.74
	2¾	90.88	96.96	103.04	109.12	115.20	121.27	127.35	139.51	151.67
	3	88.06	94.03	100.00	105.97	111.94	117.91	123.88	135.82	147.75
	3¼	85.34	91.21	97.07	102.93	108.79	114.66	120.52	132.25	143.97
	3½	82.72	88.48	94.24	100.00	105.76	111.52	117.28	128.79	140.31
	3¾	80.20	85.86	91.51	97.17	102.83	108.49	114.15	125.46	136.78
	4	77.77	83.33	88.88	94.44	100.00	105.56	111.12	122.23	133.35
	4½	73.15	78.52	83.89	89.26	94.63	100.00	105.37	116.11	126.85
	5	68.86	74.05	79.24	84.43	89.62	94.81	100.00	110.38	120.76
	5½	64.87	69.89	74.91	79.92	84.94	89.96	94.98	105.02	115.06
	6	61.15	66.01	70.86	75.72	80.56	85.43	90.29	100.00	109.71
	7	54.46	59.01	63.57	68.12	72.68	77.23	81.78	90.89	100.00

TWENTY YEARS

20	Per cent per annum	Bond to run twenty years, paying interest annually at —								
		2	2½	3	3½	4	4½	5	6	7
Real or market rate of interest is at —	2½	92.21	100.00	107.79	115.59	123.38	131.18	138.97	154.56	170.15
	2¾	88.58	96.19	103.81	111.42	119.03	126.65	134.26	149.49	164.77
	3	85.12	92.56	100.00	107.44	114.88	122.32	129.76	144.63	159.51
	3¼	81.83	89.10	96.37	103.63	110.90	118.17	125.44	139.98	154.52
	3½	78.69	85.79	92.90	100.00	107.10	114.21	121.31	135.53	149.74
	3¾	75.68	82.63	89.58	96.53	103.47	110.42	117.37	131.27	145.16
	4	72.82	79.61	86.41	93.20	100.00	106.80	113.59	127.18	140.77
	4½	67.48	73.98	80.49	86.99	93.50	100.00	106.50	119.51	132.52
	5	62.61	68.84	75.08	81.31	87.54	93.77	100.00	112.46	124.92
	5½	58.17	64.15	70.12	76.10	82.07	88.05	94.02	105.98	117.93
	6	54.16	59.85	65.59	71.32	77.06	82.79	88.53	100.00	111.47
	7	47.03	52.33	57.62	62.92	68.22	73.51	78.81	89.41	100.00

TWENTY-FIVE YEARS

25	Per cent per annum	Bond to run twenty-five years, paying interest annually at —								
		2	2½	3	3½	4	4½	5	6	7
Real or market rate of interest is at —	2½	90.79	100.00	109.21	118.43	127.64	136.85	146.06	164.49	182.91
	2¾	86.57	95.52	104.48	113.43	122.39	131.34	140.30	158.20	176.11
	3	82.59	91.29	100.00	108.71	117.41	126.12	134.83	152.24	169.65
	3¼	78.83	87.30	95.77	104.23	112.70	121.17	129.64	146.58	163.52
	3½	75.28	83.52	91.76	100.00	108.24	116.48	124.72	141.20	157.68
	3¾	71.92	79.95	87.97	95.99	104.01	112.03	120.05	136.10	152.14
	4	68.76	76.57	84.38	92.19	100.00	107.81	115.62	131.24	146.87
	4½	62.93	70.34	77.76	85.17	92.59	100.00	107.41	122.24	137.07
	5	57.72	64.77	71.81	78.86	85.91	92.95	100.00	114.09	128.19
	5½	53.05	59.76	66.37	73.17	79.88	86.59	93.29	106.71	120.12
	6	48.87	55.26	61.65	68.04	74.43	80.82	87.22	100.00	112.78
	7	41.73	47.86	53.38	59.21	65.04	70.87	76.69	88.35	100.00

THIRTY YEARS

30	Per cent per annum	Bond to run thirty years, paying interest annually at —								
Real or market rate of interest is at —		2	2½	3	3½	4	4½	5	6	7
	2½	89.53	100.00	110.47	120.93	131.40	141.86	152.33	173.26	194.19
	2¾	84.81	94.94	105.06	115.19	125.31	135.44	145.56	165.81	186.06
	3	80.40	90.47	100.00	109.80	119.60	129.40	139.20	158.80	178.40
	3¼	76.27	85.76	95.25	104.75	114.24	123.73	133.22	152.20	171.18
	3½	72.41	81.61	90.80	100.00	109.20	118.39	127.59	145.98	164.37
	3¾	68.80	77.71	86.63	95.54	104.46	113.37	122.29	140.12	157.94
	4	65.42	74.06	82.71	91.35	100.00	108.65	117.29	134.58	151.88
	4½	59.28	67.42	75.57	83.71	91.86	100.00	108.14	124.43	140.72
	5	53.88	61.57	69.26	76.94	84.63	92.31	100.00	115.37	130.74
	5½	50.89	56.40	63.67	70.93	78.20	85.47	92.73	107.27	121.80
	6	44.93	51.81	58.70	65.58	72.46	79.35	86.23	100.00	113.77
	7	37.96	44.17	50.37	56.58	62.78	68.98	75.19	87.59	100.00

FORTY YEARS

40	Per cent per annum	Bond to run forty years, paying interest annually at —								
Real or market rate of interest is at —		2	2½	3	3½	4	4½	5	6	7
	2½	87.45	100.00	112.55	125.10	137.65	150.21	162.76	187.86	212.96
	2¾	81.94	93.98	106.02	118.06	130.10	142.14	154.18	178.25	210.23
	3	76.89	88.44	100.00	111.56	123.11	134.67	146.23	169.35	192.46
	3¼	72.24	83.34	94.45	105.55	116.66	127.76	138.86	161.07	183.28
	3½	67.97	78.65	89.32	100.00	110.68	121.35	132.03	153.39	174.74
	3¾	64.04	74.31	84.59	94.86	105.14	115.41	125.69	146.24	166.79
	4	60.41	70.31	80.21	90.10	100.00	109.90	119.79	139.59	159.38
	4½	53.99	63.20	72.39	81.60	90.80	100.00	109.20	127.61	146.01
	5	48.53	57.11	65.68	74.26	82.84	91.42	100.00	117.16	134.32
	5½	43.84	51.86	59.89	67.91	75.93	83.95	91.98	108.02	124.07
	6	39.81	47.34	54.86	62.38	69.91	77.43	84.95	100.00	115.05
	7	33.34	40.01	46.67	53.33	60.01	66.67	73.34	86.67	100.00

INDEX

INDEX

Apprenticeship, 39.
Area required for production, 30, 31.
Assay office, 156.
Associations of merchants, 112–116.

Balance of trade, 21, 22; Charts of, for United States, 66, 67; Chart of, for United Kingdom, 76; of England, 71; of United States, 62–68; of United States since 1876, 161, 162; Table of, for United States, 65.
Banks, 142–145; furnish merchants with capital for transactions on credit, 148; facilitate payments, 149–156.
Bonds, Principle determining the value of, 128; Tables of value of, 214–217.
Bounties, on exports in Germany, 78, 79; Effect of, on the commercial equilibrium, 166–168; Arguments for, 183–185.
Breadstuffs, 28, 55.
British. *See* United Kingdom.

California a region of high prices, 164.
Charts or diagrams: Balance of trade, 66, 67; Demand and supply, 118, 120; Exports of cotton, 60; Exports of the United States by articles, 55; Exports of United States by countries, 59; Imports of United States by articles, 41; Imports of United States by countries, 49; Imports of wool and of tin plate, 43; Prices, 131, 132.
Checks as a means of making payments, 143, 149, 150.
Chicago as a commercial center, 102.
Cities as commercial centers, 101, 102.
Classification of merchandise, 24–27, 96.
Classification of merchants, 106–111.
Clearing house, 143.
Coal, 34.
Coffee, 29, 41.
Colonies, Tariffs of, 44; Trade of, goes to England, 70; British, 72, 73.
Commerce, defined, 6, 7; Rise of, 14–18; History of, 14–18.
Commercial centers, 101–103.
Commission merchants, 109.
Communication, Improved facilities for, affect trade, 110; Facilities for, 182.
Competition determines how sales are made, 115.
Consuls stationed in the United States, 194–203.
Copper, 34, 55.
Corn, 28.
Corporations, 126–129.
Cotton, 31, 32; Chart showing export of, from United States, 60; Production of in the United States, 52.
Cotton cloth, Demand for, in tropics, 58; Manufacture of, in England, 72.

Crises, commercial, 139–141.
Customs duties. *See* Tariff.

Demand and supply, 118–122.
Department stores, 107.
Deposits received by banks, 142, 143.
Diagrams. *See* Charts.
Discounts of banks, 142.
Discrimination between customers, 124, 125.
Division of labor, 11–13.
Drafts as means of payment, 149–152.
Duties. *See* Tariff.

England, Rise of commerce in, 14–18; Trade of, 69–76. *See* London.
Equilibrium of commerce, how maintained, 158–171.
Exchange, business of a bank, 142–144; Domestic and foreign, 152–157; Rates of, help to equalize trade, 159.
Exports, Charts of, 55, 59, 60; of France, 85, 86; of Germany, 80, 81; of United Kingdom, 75; of United States, by articles, 51–57; of United States, by countries, 57–62.
Export bounties. *See* Bounties.

Facilities needed for commerce, 181, 182.
Fairs, 15, 16.
Foods, 27–32.
Foreign commerce of United States, 37–68.
Foreign merchandise, 54.
France, 82–84.
Free trade. *See* Tariff.
Furs, 36.

Germany, 77–81.
Gold, the money of international trade, 156; Flow of, and prices since 1876, 161–162.
Government, may provide facilities for commerce, 176; should refrain from acts of robbery, 178.

Hair, 32, 41.
Handwork, 39.
Hard times, 141.
Hides, 36, 38, 41, 47.
History of commerce, 14–18.
Honesty necessary to commerce, 178.

Imports, Chart of, by countries, 49; Chart of, by articles, 41; of France, 85, 86; of Germany, 80, 81; of United Kingdom, 74; of United States, 37–50; Table of, by articles, 40; Sources of, 47–50.
Industrial revolution, 17–18.
Information important to commerce, 179–181.
Insurance necessary to commerce, 178.
Integrity necessary to commerce, 178–179.
Interest, a factor in fixing profits and prices, 123; affects the value of bonds and stocks, 127–130.
International exchange, 154–157.
Inventions, 17–18, 53; Effect of, on British trade, 70.
Iron, 33–34; Trade in, during a depression, 52–53; in England, 72.

Kerosene. *See* Petroleum.

Labor, Definition of, 5.
Leather, 36.
Linen, 39.
Liquors, 29, 70, 78.
Loans, of banks, 142.
London, Credit and exchange business of world centers in, 151, 154–155.

Manufactures, distinguished from raw products, 39; imported into United States, 40; Increased export of, from United States, 52–53; Countries sending to United States, 47, 48.
Markets, 16.
Materials of commerce, 24–36.

Meats, 28, 29, 52.
Merchandise, Definition of, 24; Classification of, 24–27; Classification of, in the Census, 96; Classes of, selected for speculation, 137–138.
Merchant, Function of the, 9–10.
Merchant marine, 89–93.
Merchants, Classification of, 106–111; Associations of, 111–116.
Minerals, 33–35; in United States, 96.
Money, Use of, in commerce, 19–23; Value of, 20–22, 160, 161, 172–174.
Monopoly cannot be maintained in purely mercantile business, 113.
Morality and commerce, 7, 8, 178, 179.
Motive, The, of commerce, 3–5.

Navigation laws, 73, 89–93.
New York, as a commercial center, 102, 103; as the center of exchange business for United States, 153–154.

Ocean carrying trade, 89–93.
Organization, of trade, 106–116; of merchants, 111–113.

Panics, 140, 141.
Payments, 142–157.
Petroleum, 34, 52, 61; used in Germany, 78.
Population, Relation of density of, to production, 30–32, 33, 35, 38, 51, 58, 71; to volume of commerce, 94–95.
Practical devices for promoting or regulating commerce, 175–188.
Prices, fixed by agreement, 112, 113; Market, 117–122; influenced by speculation, 135, 136; influence purchases and sales, 118, 160; Fluctuations of, in the United States since 1876, 161–162; between distant countries, 163–166; General level of, affected by amount of money in circulation, 20, 21, 160; by quantity of credit instruments in use, 144; by other things, 166–171; for credit and for cash, 147, 148; affected by the flow of money, 158–163.
Private enterprise makes commerce, 176.
Problem, The, of commerce, 1–3.
Production, Definition of, 5; on a large scale, 11–13.
Profits, 122–126.
Protection. *See* Tariff.
Publications relating to commerce, 180.

Quantity theory of money, see page xxii; 172–174.

Railroads of United States, 99–101.
Raw products, distinguished from manufactures, 39; imported into United States, 40; exported from United States, 51–53.
Retail trade, 106–108; Associations of retail merchants, 112, 113.
Rice, 28.
Risk an element in profits and prices, 123, 124.
Robbery hinders commerce, 177.
Rubber, 35, 41.
Rye, 28.

Sales, how made, 113–116.
Securities, The trade in, 126–130.
Security of person and property necessary to commerce, 177–181.
Schools, Technical and trade, 39; of Germany, 77, 78; promote commerce, 180; for the study of commerce, 204.
Shipping, 89–93.
Silk, 31–33, 41, 82, 83.
Speculation, 133–139; Times of, 140; rendered possible by credit, 144.
Stocks of corporations, 126–130.
Sugar, 29, 41; Beet, 37; Bounties on, 78, 79, 83, 183, 184.
Supply and demand, 118–122.

Tariff, Effect of, on the commercial equilibrium, 166–168; Colonial, 44; of United States, 44–46; of United Kingdom, 69–71; of Germany, 78; Arguments for and against protection, 185–189.
Textiles, 30–33.
Timber, 35.
Tin plate, Imports of, by United States shown by chart, 43.
Tobacco in England, 69.
Trade, Definition of, 5; Sharing the advantages of, 168–172.
Transportation, by water in United States, 99, 100; rates help to equalize trade, 159, 160; Improved facilities for, affect trade, 110; Facilities for, necessary for production on a large scale, 12, 13; Primitive, 98, 99.
Traveling salesmen, 114, 115.
Tropics, Importance of, 37; Manufactures imported by, 58; Raw products imported by, 61.
United Kingdom, Commerce of, 69–76.
United States, Foreign commerce of, 37–68; Domestic commerce of, 94–105.
Vegetables, 28.
Volume of domestic commerce of United States, 103–105.
Voluntary associations provide facilities for commerce, 176.
Wages, Average of, in several places 165.
Wants, 3–5.
War, disastrous to commerce, 178.
Water transportation, Importance of, 98–101.
Wealth, Definition of, 5.
Wheat, 27, 28.
Wholesale trade, 107–110.
Wool, 31, 32, 38; Imports of United States of, shown by chart, 43; Countries producing, 47.
Woolen trade in England, 71, 72.